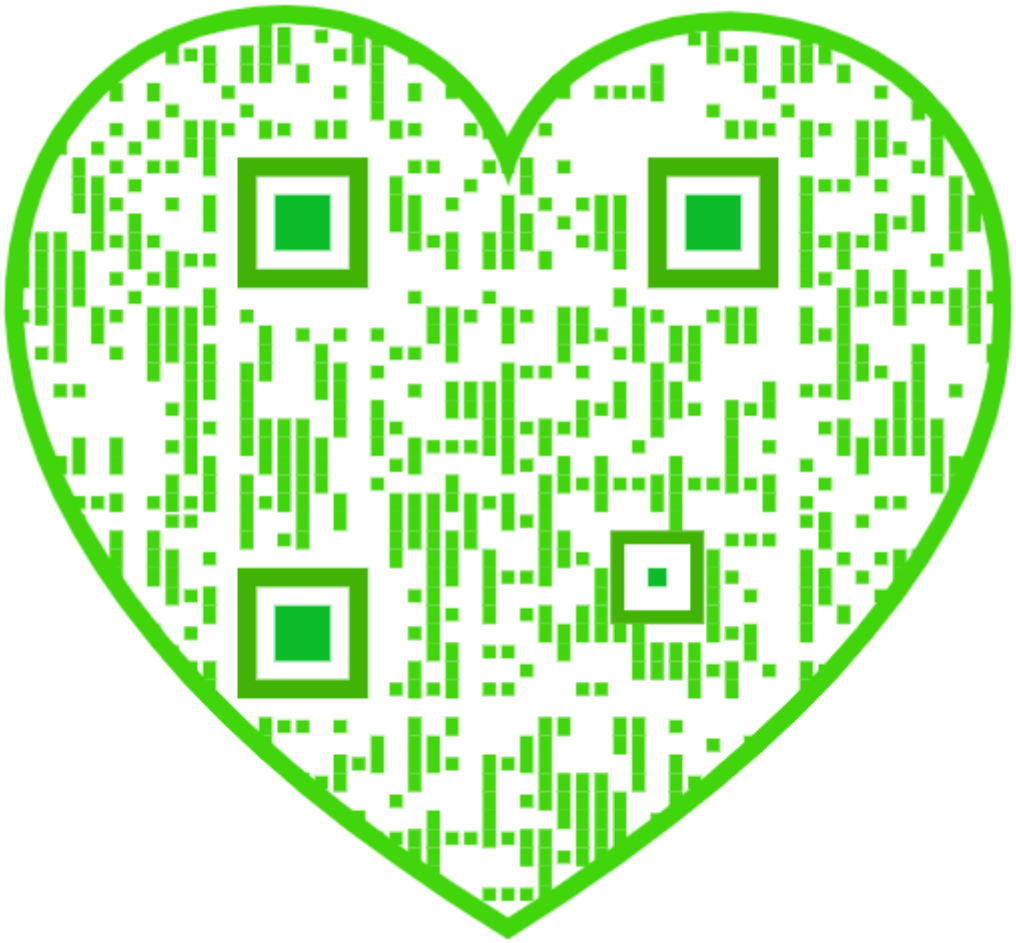

STAINED GLASS

ARMORIAL PANEL, REPRESENTING THE ARMS OF LORD HOWARD DE WALDEN, EARL OF SUFFOLK AND BERKSHIRE. *One of a series of 45 Stained-Glass-Panels executed for His Lordship's country-seat in Wiltshire. Size of Original 21" by 29"* ——— *By the Author*

STAINED GLASS

A Handbook on the Art of Stained and Painted Glass, Its Origin and Development From the Time of Charlemagne to Its Decadence

(850-1650 A.D.)

By

ALFRED WERCK

With 20 Illustrations

NICHOLAS L. BROWN
NEW YORK **MCMXXII**

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DEDICATION

To those who know nothing of stained glass, to those who know something and want to know more, to those who know everything but would hear from another, I dedicate this book.

—A. W.

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STAINED GLASS

PREFACE

Early training in the workshop, long practice in designing and painting in all styles, a deep interest in Stained glass, and a loving study of it, combined with painstaking research extending over many years, I may plead as my justification for writing this book. The following chapters are the product of an experience of thirty years, during which glass painting and collecting old glass has been my delight and recreation.

Minute investigation into the history of this art seemed to me at first safer in the hands of English and Continental authorities, yet in the course of time I was confronted with so many puzzling details and antiquarian problems that I started to look into the mysteries of this half-forgotten art. I have succeeded in uncovering the secrets of the brilliant colors of mediæval Stained glass, thus striking at the root of the problems of an art that has the minerals of the earth as its source and medium.

PREFACE

The illustrations for this book, some of them from private collections, others from churches or Museums, have been chosen throughout to clarify the subject, not merely to beautify the text. From practical considerations, I have resisted the temptation of colored illustrations with the exception of the frontispiece in spite of their desirability from a theoretical standpoint in a book about windows. A perfect reproduction of Stained glass which alone would satisfy the connoisseur, is probably as yet beyond the resource of color-printing.

ALFRED WERCK.

New York City, January, 1922.

INTRODUCTION

INTRODUCTION

WHITE (*TINTED) GLASS: ITS ORIGIN

White glass, as we see it to-day, did not exist in the early days. So-called "white glass" was always tinted; that means that it showed either a greenish, yellowish, bluish or greyish hue.

Ordinary glass is composed of sand melted and run together. The best sand for the purpose contains a large proportion of the substance called silica, as in the case of sand formed of powdered quartz or flint. Silica, after melting, does not recrystallize in cooling, but forms an even transparent substance, plastic while still hot. Glass can be made by this means alone, but the heat required in this process is so great that it has been used in recent years only for special purposes by the use of electric furnaces. Otherwise the

sand is melted at a lower temperature by means of a flux, for which either potash or soda may be used, with the addition of lime and magnesium, or lead, to enable the glass to resist moisture. Theophilus, describing the process in his treatise, which dates back as far as the thirteenth century, recommends the use of beach twigs, calcined in an earthen pot, whence the name "potash."

It is interesting to observe that glass containing lime and magnesium does not resist the influence of the atmosphere so well as glass containing lead, and corrodes much sooner. Old glass, for instance, shows corrosion on some panes while on others only a steel blue patina is visible. The age of glass can therefore not be judged by corrosion alone!

Pliny tells a tale with regard to the invention of glass which, if not correct,

Saint Timothy, the martyr, coloured glass of the end of the Eleventh Century, found in the Church of Neuviller (Bas Rhin), now at the Cluny Museum, Paris. 1075-1080.

is at any rate so plausible that I cannot resist quoting it here. A certain merchantship touched on the coast of Syria, and the crew landed at the mouth of the river Belus on a beach of fine white sand, which, says Pliny, was still in his day of great repute for glass making. The cargo of the ship consisted of natron, a natural alkaline crystal, much used in ancient times for washing, and the crew, having lighted a fire on the sand, used lots of the natron to prop up their kettle. What was their surprise, to find afterwards a stream of molten glass running down from their camp-fire! The natron had acted as a flux and enabled the sand to melt in the heat of the camp-fire, which must, however, have been of unusual intensity to achieve this result.

This episode, whether true or not, can have had no more than local significance, for the art of glass making was

known in Egypt from very early times, and was employed in the imitation of precious stones which were produced in white and colors.

COLORED GLASS: ITS ORIGIN

"STAINED" GLASS AND "PAINTED" GLASS

"Stained" glass is usually confounded with "painted" glass, but the two should be considered quite distinct. "Stained" glass, as the term is ordinarily used, is taken to include also painting upon glass. As a matter of fact, glass staining and glass painting are two quite different processes. There is, however, some justification for the custom of grouping them together under one name in the fact that from the earliest times the two processes have been employed in close association. "Stained" glass, strictly speaking, is understood to apply to windows, or separate stained and painted panels, or "medallions," in a window, either separate or inserted in

the lead-work of the window. Stained glass first appeared in connection with the Byzantine and Romanesque styles, but came into general use with Gothic architecture, developing to ever greater beauty and brilliancy, until it reached the zenith of perfection in the early part of the sixteenth century, and concluded with the Renaissance style, which owed not a little to the Gothic tradition. The art of Stained glass was thus closely identified with the Middle Ages.

Blue (*Azure*)

"Stained" glass means colored glass, that is "colored in the pot," a process used for instance in the manufacture of blue glass. The melted white glass is mixed with a metallic oxide (the blue extract of arsenic sulphates of natural cobalt) which stains the glass blue. A delicate process, however, was devised

Medallion window, representing Samson, leaving the City of Gasa. Excellent coloured glass of the middle of the Twelfth Century. (No Restoration)
About 1150.

by glass-makers of the early period, by which the nickel, always associated with cobalt in nature, was eliminated. Thus they avoided the brown shade and the dark effect produced by the presence of nickel. Copper was then added, about ten per cent, the greenish-blue tint of which served to correct the too violet blue of the pure oxide of cobalt. It was during this earliest period (800-1350) that Stained and Painted glass reached the zenith of its perfection, exhibiting a gorgeous richness and intrinsic value of color unequaled in later periods.

Green (Vert)

Green glass was obtained by boiling white glass for about five hours until it turned yellow. Then, as in the making of blue glass, a certain percentage of blue extract of arsenic sulphate of cobalt was added to the formerly white

glass which in the course of half an hour turned into a light green. The glass-worker, having removed from the pot as much of the light green as he required, obtained a darker green by the simple process of adding more of the above mentioned blue extract and letting it cook for another hour. The glass was then ready to be taken out and blown into shapes of varying thickness and tints, which of course added greatly to its quality.

Violet (Purpure)

Violet, generally called purple, glass was produced by adding the natural, unpurified ore of manganese.

Red (Ruby, Gules)

Red glass, called Ruby among glass-workers, is really a bottle-green glass,

covered with an extremely thin enamel tinted with oxidulated copper, that is, copper slightly oxidized. This kind of glass is generally known as "flashed glass."

The secret of red glass was lost for many centuries. It is now only equaled by that made with gold. I have found specimens dating from the twelfth and thirteenth centuries, in which the Ruby glass had been colored all through, or colored in the pot. This kind of red glass is now very rare, and has been replaced almost entirely by the "flashed glass" described above.

Angel in the Crypt at the Cathedral of Strasbourg. Early Thirteenth Century glass.

About 1230.

FIRST PART

THE ART OF STAINED GLASS

Its Origin and Development

The Staining of glass, like many other arts, was an achievement of antique culture. Upon the collapse of Græco-Roman civilization this art survived together with other remains of the classic tradition, and spread gradually from the cities of the Mediterranean to Northern Europe. Marseilles, where the antique arts and crafts had flourished since the early days of Phenician trade, was one of the foremost abiding-places of this art, and not less important was the glass industry of Murano, the secrets of which were jealously guarded by the city of Venice. From the earliest times the Venetian authorities had assumed control of the Murano craft in order to prevent the spread of the knowledge of the unique methods

there employed for the Staining and working of glass. But the jealously guarded books of instruction were copied. Foreign countries succeeded by bribes and promises in enticing the craftsmen to bring their skill to other cities.

Thus the art of Staining glass spread throughout Europe and developed during the Middle Ages. While the secrets of the technique of the art became gradually known, there were still special processes cherished by certain localities, and even in later centuries, the guns of Murano were wont to fire an alarm when it became known that one of its craftsmen had escaped to another city.

Close Relation of Glass to Mural and Panel Painting

The desire to gain possession of the secrets of this much coveted trade ex-

plains the character of the extensive literature which has accumulated upon the art of Staining glass. For most of the treatises on this subject which have appeared from the Middle Ages to the present time, have discussed the art of Staining glass chiefly from a commercial and technical standpoint, and have seldom progressed beyond these practical considerations to a deeper appreciation of the art as such. Little effort has been expended upon the important task of examining the style of ornamentation and figure drawing. There can be no doubt, however, that an inquiry into these problems would make a valuable contribution to the history of art. For the crafts stand here in such close relationship to art itself that it is impossible to form a just estimate of the artistic productivity of former centuries without paying due regard to the work of the handicrafts. The old painters of

the fifteenth and sixteenth centuries, almost without exception, were ready to place their art at the service of the crafts in the preparation of models and designs. In the goldsmith's craft, for instance, in pottery, in leatherwork, and in many other Mediæval handicrafts was this alliance of artistic imagination and manual skill noticeable, but nowhere more than in the art of glass Staining, closely connected as it was from the very beginning with Mural decoration and panel painting.

Much light can therefore be thrown upon the understanding of painting in the earlier centuries, of which so much has been lost to us, by a consideration of glass painting from the artistic, rather than the technical point of view. This is particularly true of the earlier period where we have no examples of panel painting and must therefore give particular attention to mural and miniature

painting, and to a less extent to glass Staining. We have a number of important miniatures which enable us to reconstruct a picture of the earliest period in its main outlines. Of the earliest mural paintings, however, but few examples survive. The beautiful frescoes in color of the earliest centuries are to-day shrouded under a dead-white covering of chalk, and where they are still visible by accidental or intentional removal of this covering, they appear in a poor state of preservation. In many cases, they have been whitewashed again or completely painted over with little appreciation for their merit. We have therefore few materials for the study of mural painting, but can only imagine what these decorations might have been.

The northern countries, such as Switzerland, Germany, Austria, France and England, unlike Italy, have no Vassari to record with indefatigable indus-

try the history of art and artists. Even in the case of their greatest masters our information is very meager. Most of the works that still survive are without signature or date, and it is therefore very difficult to arrange these works in chronological order. Furthermore, the varied points of view of the investigators often lead to quite different conclusions in a critical estimate of styles. Long lists of names of masters have been gathered from a study of the archives but only rarely are their works mentioned in connection with their names. The notations refer almost exclusively to such matters as taxes, transfer of property, citizenship, guild membership and marriage.

In the works of painting that have come down to us, we find, however, a large number of artists, whose work is of the greatest interest. But in these cases also there appear the gaps which

The Parting Knight. French glass, late Thirteenth Century.

About 1290.

the most exhaustive investigation has not been able to fill. A complete estimate of the work of a master, therefore, can only be secured by supplementing the study of his pictures with that of his engravings and woodcuts. For example, we should consider a woodcut of Duerer or Cranach among their other works, even though it has been executed by a wood engraver, such as Andreae, Joerg, or some other. To be sure, we can distinguish to what extent the engraver has coarsened the fine points of the master, or followed his design; the details of the craftsman's life and work are usually of little interest to us.

The Staining of glass is often still more closely connected with painting than other crafts, since in many cases the painter was at the same time the glass worker. Furthermore, the subjects, usually religious in character,

were often identical, so that the inclusion of glass Staining in the history of painting is an inevitable necessity. The technique of Staining glass naturally involves simplifications and peculiarities which make it very difficult to appreciate the essential features of the style of earlier examples, but the trained eye will recognize these divergences.

Questions of Authorship

By what standards, then, can we assign to its proper artistic position and value a work of Stained glass which has been produced by a glass painter after a design, frequently in colors, by such well known artists as Hans Baldung Grien, or Hans Holbein the younger? Can we rightly describe it as the work of a glass painter? Or must we consider it as the work of Grien or Holbein? There can hardly be any doubt

upon this point, as the entire artistic content of the work must be ascribed to Grien or Holbein. Nevertheless we must recognize that there is required in the accurate interpretation of such a design in glass, not only a highly developed technique, but also an artistic sensibility, not less than that required in wood-engraving. If, therefore, we know of works of Stained glass that we can definitely ascribe to the designs or sketches of certain artists, we are justified in assigning these to such masters, and we are thus enabled to enlarge and enrich our knowledge of them and their work. It is possible also that we may find among glass paintings the works of a painter whose mural decorations have not been preserved, or to whom we cannot definitely ascribe any of the surviving works of unknown masters. We are thus enabled to draw important conclusions with regard to the ascription

of certain mural decorations. This method of using our knowledge of Stained glass to throw light upon the history of painting in general, has been insufficiently employed, although it often furnishes valuable evidence for the position and work of a mural painter. This task is a large and difficult one. But few pictures have been reproduced, which, having no special connection with each other, are of comparatively little value for the history of art. For their insufficient number permits no general inferences to be drawn.

Chronological Survey of Early Glass

No exhaustive work on the history of Stained glass from the artistic standpoint has yet been written. An account of all the important Stained glass windows in churches and museums would make an important contribution to the

The Flight of Paulus. French glass, late Thirteenth Century.

About 1290.

history of painting. The specimens of Stained glass which have been preserved, are sufficiently numerous and varied to illustrate the continuous development of the art of Staining glass from its earliest inception to its final decadence. It offers us a direct analogy to the simultaneous development of painting from the twelfth century to the Thirty Years' War which brought about the decay of many of our arts.

In France and particularly in the district of the Vosges are to be found many monuments from the Byzantine and Roman periods, and of the style of the period of transition in which among other artistic productions a work so important for the development of painting in Central Europe has been created as the "Hortus Deliciarum" of Herrade de Lansberg, now lost forever.

In regard to the Gothic period, and especially concerning the fifteenth cen-

tury, we find there too much information. On account of its beauty and costliness Stained glass was always protected with the greatest care and for this reason it often escaped destruction, so that, paradoxically enough, the most fragile material proved here the most lasting.

After I had arranged the specimens of Stained glass chronologically, according to their date of origin, thus having worked out a continuous line of development, I compared with them the extant works of French, Alsatian and Swiss painting, that is, the paintings from the districts of the Marne, Saone, Aisne and Upper Rhine, in order to ascertain to what extent these had served as models for Stained glass. I succeeded as far as the fifteenth, and in particular as far as the sixteenth century was concerned, in recognizing in Stained glass the masters and typical

characteristics of panel painting. For the twelfth, thirteenth and fourteenth centuries, however, only mural paintings and miniatures can be considered for purposes of comparison since there exist no properly attested panel paintings of these periods. The frescoes, too, of this period have disappeared to an almost equal extent and the most important subject for purposes of comparison in the miniatures is represented by the "Hortus Deliciarum."

In the examination of these works I endeavored first to ascertain the position of the glass painters in the various periods and the modifications which it underwent. My conclusions were corroborated by the development of the technique of glass painting.

Firstly: From the beginning to the eleventh century glass painting like all other arts of the period was a monastic

art, the painter and the glass painter for the most part the same person.

Secondly: About the middle of the eleventh century glass painting began to become a secular as well as a monastic art, which grew to be a purely secular art with the continuous development of handicraft in the thirteenth and to an even greater extent in the fourteenth century. The glass painter works out his own designs and sets up the glass window himself in his workshop with the help of his assistants.

Thirdly: An important change appears about the middle of the fourteenth century with the development of panel painting which flourishes during the fifteenth century. The painter furnishes the conception, the design and the sketch while the glass painter interprets these to the glass. The painter is here differentiated from the glass painter.

Glass Painting as a Monastic Art

Glass painting, properly so-called, which appeared about the year 750 according to the latest researches, found its first employment in the monasteries, at this time the patrons of all forms of art. The painter monk, who with painstaking industry interwove the marginal decorations of the manuscripts with his miniatures or adorned the corridor and refectory of his monastery with wall paintings, may also have devoted himself to the art of glass painting. Hence the similarity of style and technique to be observed in all these types of paintings, whether in books, on walls or on glass. And even if there was a division of artistic labor among the monks and the painter in these three mediums was not one and the same person, nevertheless the possibili-

ties and limitations of their artistic expression remained on the same level.

The regulations of the Benedictine order, especially, recommended the practice of the arts and the monks devoted themselves thereto with the greatest eagerness. Artistic skill spread from one monastery and one country to another. Just as the monk surrendered his own individuality upon entering the monastery and thought of himself only as a part of his brotherhood, so he denied himself the signing of his works with his own name and labored only "for the honor and the glory of the Saints." So we must explain the fact that the names of the creators of the most important works of the early period and those most significant in the history of art are entirely unknown to us, and remain so except for an occasional accidental reference to them in some document.

Theophilus

The monk Theophilus in his book "Schedula diversarum artium" which dates from the end of the eleventh or the beginning of the twelfth century, gives us a quite detailed description of the process of the making of a window, how the implements were prepared, how the furnace for melting and burning the glass was constructed, how the colors were prepared, applied and burnt in, how the lead cames were cast and placed around the glass. This entire work and all the preparations for it we can hardly believe was accomplished by the glass painter of this period, without assistance and cooperation, although the description of Theophilus leaves us with this impression. We must remember, however, that we have other sources of information for

the methods of work on the monastic estates in the tenth, eleventh and twelfth centuries.

The relation of the manorial workers to the monasteries has been well described as follows: The artisans that are included in the manor are only in their service. At times mere servants who receive food and shelter within the manor, sometimes settled upon their own land where they receive their livelihood and give in turn service to the manor in their particular craft. To indicate that they are under obligation for such service they bear the designation "Officiales, Officiati," that is, "officials." Among the manorial workers of Charlemagne there are named not only blacksmiths, bakers, carpenters, woodturners and others, but even gold- and silversmiths. Hence we can infer to what extent even at this early period the handicrafts had been taken over by

The Resurrection. French glass, early Fourteenth Century.

About 1320.

such special secular workers. The so-called Conversi, or lay brothers, also worked in the monastery to which they belonged. These lay brothers, but still more the secular workers, formed a bridge upon which art spread from the monastery among the people and gradually became secular industry and later town industry. In this development the crusades exercised a particularly important and beneficial influence in awakening in the laity the slumbering individuality and by increasing the personal power of the individual. To an ever increasing extent in the twelfth century and more particularly in the thirteenth century we find the names of secular craftsmen, among them glass painters. The latter are variously described in the documents as: "Pictor, Vitrarius, Vitrator, Fenestrator, Factor Vitrorum, Glaseator, Glaisworter." This indicates that this industry was

very widely extended, and that under the term glass painter were to be included not only those who completed the glass window but also those who painted it, as the term "Pictor" appears with great frequency. Thus we see the painting of glass developing constantly during the twelfth and thirteenth centuries as a lay industry although there were monks at that time and later who were recognized as glass painters of particular skill.

The Gothic Period

The rise of the Gothic style, which originated in France in the middle of the twelfth century and began to spread to the other countries of Europe in the beginning of the thirteenth century, gave the most powerful impetus to glass painting. In the Romanesque period the windows were still relatively small,

and the large wall spaces supplied room for the free development of fresco painting. A change came with the appearance of the new architectural style which from the beginning made it possible to break up the wall space by distributing the weight of the arches and roof upon special parts of the wall supported by flying buttresses. The window space in Gothic architecture thus makes a significant gain in width and height, and fresco painting left with insufficient space or no space at all, accordingly, hands over the scepter to glass painting, which now displays its magnificent beauty and splendor. For the decoration of the many broad, high windows of the numerous Gothic churches, a large number of skilled masters of the art of glass painting were required, and a much more extensive division and differentiation of labor among them. The glass painter

was compelled to keep a large number of journeymen and apprentices, and to submit, like the stone-cutters, to the craft regulations of the guild. He usually belonged to the guild of painters, which as a matter of fact first appears in the middle of the fourteenth century. The glass painters were enrolled in various guilds composed of craftsmen in the various trades, but they belonged for the most part to art guilds.

In the monasteries of the fourteenth century the art of glass painting was rarely practiced. The glass worker of this period was still a "painter," and was assisted to some extent in his painting by his journeymen who painted particular sections or panels of the windows, but for the most part were entrusted with the technical construction of the window. The artistic conception of the design was in most cases worked out by the master himself. But those elements

Christ appearing to his mother and disciples. French glass, early Fourteenth Century.

About 1320.

in the workshop, who were especially gifted artistically, were divided at an early date, it need hardly be remarked, from the workers with craft skill and technical training.

Influence of Panel Painting

The vogue of panel painting at the beginning of the fifteenth century often found the glass painters no longer equipped to satisfy the more fastidious taste and higher requirement imposed upon them as "painters." They were placed in competition with artists, and glass paintings were expected not only to resemble panel paintings but to rival them. There may indeed have been masters in the fifteenth century who were either skillful enough in painting to meet the requirements or who took a skillful young painter to work as a journeyman in their work-

shops. For the most part, however, the glass painters of the fifteenth and the sixteenth century who received an order for a glass window or a heraldic panel, entrusted the design of the work to a panel painter except in special cases where the design was given to them directly with the order. So in the fifteenth century the painter is differentiated from the glass painter and for that reason we must regard the preponderant number of the works of this period no longer merely from the standpoint of craftsmanship but rather from that of art. And we must assign the works of glass painting to the painters of the period.

The Development of Technique

The art of glass painting, to be properly understood, must be considered in all its phases in its relation with the de-

velopment of its technique. Our observations upon the individual works must be prepared by a short discussion of technique which has been the subject of intensive research.

The beginning of the art of Stained glass, as has been remarked already, must be assigned to the time of Charlemagne (750-814 A.D.). The French historian M. Labarte in his "Histoire des Arts Industriels du Moyen Age" gives in one passage the first information that we possess upon glass painting. He states that the art of Staining glass was invented in Germany, since the first, that is, the oldest, painted windows were found in the Rhine province. Richer, a monk of the monastery of St. Remy tells us in his chronicle that Adalbert, Archbishop of Rheims, a German by birth and at the same time archbishop of Rheims and Deacon of the cathedral at Metz, which at that time

was included in the Holy Roman Empire, arranged for the restoration of the Cathedral of Rheims in the year 989. He bestowed a chime of bronze bells upon the cathedral and ordered Stained glass windows depicting various historical scenes to be set up in a number of the window-openings. These glass windows, therefore, were apparently made in the neighborhood of the Rhine.

France as the Birthplace of the Art

Our evidence, however, is fairly complete that France is the birthplace of the art of glass painting, for the monastic chronicler, Benigne de Dijon, tells us about 1052 A.D. that the chapel of his monastery contains a window that illustrates the martyrdom of St. Prascasia, and furthermore that this glass painting was transferred from the older

Christ in the Purgatory, leading Adam by his arm, followed by Eve. French glass, early Fourteenth Century.

About 1320.

church that was restored by Charles the Bald. This event took place about 820 A.D., shortly after the death of Charlemagne. This window has been preserved and the city of Dijon is now in possession of the oldest glass painting that has defied the ravages of time and must be therefore over 1200 years old.

Further light is thrown upon the history of glass painting incidentally by an undated letter of Gozbert, Abbot of the monastery of Tegernsee from 982 to 1001. This Abbot thanks a count Arnold of Vogaburg or Vohburg for the windows which were painted for him, that is, presented to him. The most important passage of this letter runs as follows: "By your happy fortune the golden-haired sun for the first time shone upon the pavement of our church through glass painted with pictures of various colors." (Vestris felicibus tem-

poribus auricomus sol primum infulsit basilicae nostrae pavimenta per discoloria picturarum vitra).

The astonishment and delight of the Abbot and the monks of Tegernsee can be imagined as the golden haired sun sent for the first time its rays through the newly set colored glass windows of the church and covered the floor like a carpet with colored reflections. The same feeling of mystic exaltation that comes over us even to-day as we gaze upon the mysterious splendor of transparent color must have affected people in those times when the Abbot promised the count his pious intercession for the generous donor who had adorned the church so wonderfully with works of art "whose like had never been seen."

"Merito pro vobis deo supplicamus qui locum nostrum talibus operibus honorum sublimastis, qualibus nec priscorum temporibus comperti sumus, nec

nos visuros esse suerabamus." (You well deserve that we should supplicate the Deity in behalf of one who has beautified our place of worship with such works of art as have not been found in the times of the ancients nor will ever be seen again.) And the more as the windows had previously been covered with old hangings, probably with tapestries which had grown very unsightly with time, for he adds: "until now the windows of our church have been covered with old draperies."

The fact that this letter mentions for the first time, so far as we know, multicolored glass paintings led historians to the conclusion, that Tegernsee is the place where Stained glass was first made, or invented. But there is evidence to the contrary in the words of abbot Gozbert of Tegernsee who, in thanking the Count of Vohburg for the donation of the windows, remarks, that it was a

work "such as has not been found in the times of the ancients nor can we ever expect to see ourselves."

The origin of glass painting must therefore be sought rather with the donor, Count Arnold of Vohburg, than with the beneficiary at Tegernsee. There is further evidence against Tegernsee as the place of origin in the fact, that the Abbot Gozbert sent the Count apprentices for instruction in the art of glass painting, as is clearly indicated in the close of the letter already quoted: "Vestrae deliberationi dimittimus illos pueros probandos, si illud opus adhuc ita sint edocti, ut vobis est honorificum nobisque necessarium, vel si aliquid eis deesse inveniam liceat eos remittere vobis causa meliorationis. Vale!" (We entrust to your judgment those boys on probation until they are sufficiently trained in this work so honorable to you, so necessary for us, or if

there should still be found some deficiency in them, we should like to be permitted to send them back to you to be improved. Farewell.)

Under the successor of Gozbert, Abbot Beringer (1003-1012), Tegernsee possessed a glass factory, as appears from letters to an abbess and to Bishop Gottschalk of Freisingen (994-1006).

The Mediæval Technique as Described by Theophilus

Of the greatest importance, however, for an understanding of the beginnings of glass painting is the world-famous book of Theophilus presbyter "Scedula diversarum artium," which dates from the end of the eleventh or the beginning of the twelfth century. This book contains chapters on

1. The preparation, mixing and treatment of colors;

2. Glass makers and the art of glass painting;

3. Manufacture of ecclesiastical paraphernalia such as chalices, candlesticks, incense-burners, lamps, pitchers, reliquaries.

Unfortunately just the chapters are missing on the preparation of colored frits, which were later removed on purpose, a loss which is to be greatly deplored. According to the Index the following subjects were treated in the lost chapters:

Chap. 12. De coloribus qui fiunt ex plumbo, cupro et sale.
Chap. 13. De Viridi Vitro.
Chap. 14. De Vitro Saphireo.
Chap. 15. De Vitro quod vocatur Gallien.

12. Concerning colors which are made of lead, copper and salt. 13. Concerning green glass. 14. Concerning blue glass. 15. Concerning glass which is called Gallien.

The Three Periods of Glass Painting

The prescriptions of Theophilus underwent, however, many modifications during the following centuries. After the changes brought about in the technique of glass painting by the discovery of new enamel colors, the history of the art may be divided into three periods:

1. The early period, that of brown enamel, about 800-1350.
2. The middle period, that of silver stain, about 1350-1500.
3. The late period, that of enamel colors, about 1500-1650.

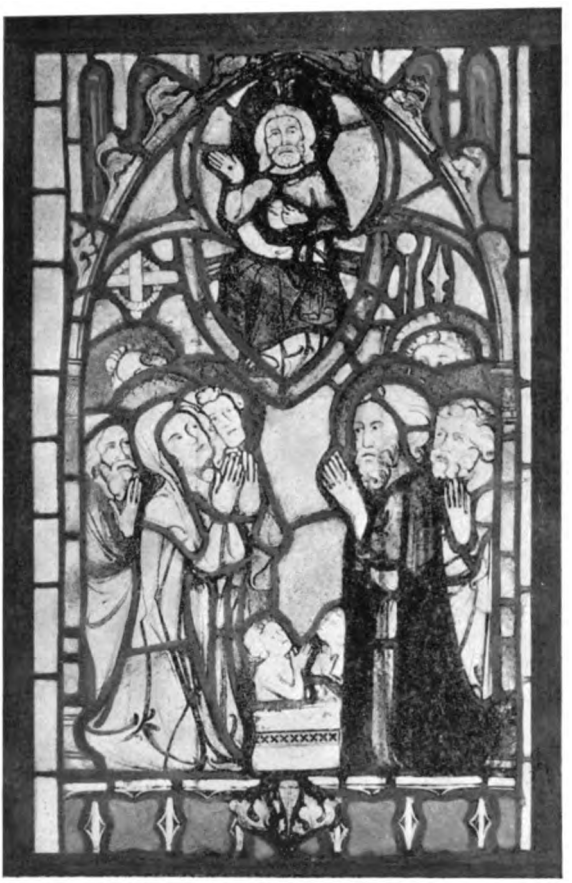
To assign individual works to their correct place within these periods is a very difficult task, as indeed are all efforts at chronological definition in glass painting. One is too apt to be guided in his judgment by the facial types, the position of the figures, the drapery, etc., and thus perhaps to commit great er-

rors. For some artists often continue for years an outworn style. Then too, especially in the fourteenth century, an effort was often made to match the older works of Stained glass in a church. This happened particularly when one or more windows damaged by fire or weather had to be repaired, and care had to be used to adapt the new sections in style to the old.

One clew to the dating of Stained glass we often find, however, in the character of the letters in the inscriptions, bands of letters, and the like or in the incidental articles which are associated in the paintings with the figures, such as crowns, scepters, swords, lances, girdles, buckles, shoes, armor, goblets, bumpers, etc. For here the artist keeps to the style of his time.

The making itself of Stained glass windows remained the same in all essentials during these three periods, such

FIRST PERIOD (Transitional)



The Last Judgment. French glass, early Fourteenth Century.

About 1320.

changes as there were relating more to the manner of painting, which will be viewed later. For the application of new colors was most conspicuous in the second and third periods.

At the beginning of the nineteenth century an effort was made to revive the ancient and honorable art of glass painting, albeit as with all beginnings, with great difficulties. But the art is now marching forward with sturdy steps to ever greater perfection. Now again as in the Middle Ages, artist and craftsman collaborate for a common end. And another factor contributes greatly to the present prospects of the art, that is, the increasing interest shown by the public.

It may, therefore, safely be prophesied that at no very distant date this ancient art will be restored to its position of universal admiration and appreciation.

EARLY PERIOD

From 800 to 1350 A.D.

Saint Christophorus. French glass, early Fourteenth Century.

About 1320.

Technique of the Earliest Glass Painters

Theophilus gives us sufficient information in his work in regard to the technique which was used by the oldest glass painters, and remained in general use during the whole period. Furthermore, Theophilus gives us specific directions, not only about the preparation of brushes and like matters, but also about the preparation of the glass, the building and tending of the kiln, how the lead-cames for the casings around the glass are to be cast, prepared and fitted in place, how the leading of the windows must be done, the soldering of the lead work and many other details. In Theophilus' time the glass-furnace for the making of the glass for church windows was usually con-

structed in the vicinity of the church that was being built. This was done in order to avoid the necessity of transporting the windows for a distance, since the material was so fragile and the means of transport so inadequate. An old tradition, for which I can find no documentary evidence, has it, that as late as the first decades of the nineteenth century, the remains of an old glass furnace were found in Windisch in Switzerland, in the vicinity of the ancient church of Koenigsfelden, and that in this furnace the panes of glass were made for the beautiful old windows, which are still the chief adornment of the church.

The old monuments show us that the glass makers of that time could only make small panes of glass, about the size of a hand (in white and color). It was not until the end of the fourteenth century that the larger pieces appeared.

The only color the painter applied with his brush, and fixed by a process of enameling, was "Grisaille." Theophilus advises the use of copper in its preparation; to-day it is made from oxidised iron. With this tint the finer outlines, ornaments and smaller folds of drapery were drawn on the various small white and colored pieces of glass put together in mosaic-like manner. The main outlines were of course marked by the lead strips, which followed the contours carefully, and fulfilled the same functions as the heavy outline drawing in mural paintings or in miniatures. Grisaille paint was also applied to inscriptions and ornaments, where fine effects were often secured by erasures with a small wooden stick, which removed as much of the color as was required to make certain spots appear transparent or shaded.

This method was practiced during

the entire early period, and was applied with increasing success and precision. In former times, inventions and improvements were not so numerous as they are to-day, nor did science, with its knowledge and researches, come to the aid of technique as it does to-day. Improvement in technique in those days was only achieved by a constant effort at the elaboration and perfection of methods, already acquired. Progress was attained rather by developing technical processes, already known to a higher state of perfection, than by inventing entirely now processes. But the works of art of olden times profited well thereby, and call forth our wondering admiration, through the mastery of technique which they exhibit.

Windows of the Early Period

The windows of the early period appear to us then as a mosaic of small

Represents Sodom and Gomorrha. French glass, early Fourteenth Century.

About 1320.

separate pieces of glass, enclosed in lead, with the shadings and finer outlines indicated upon these with Grisaille paint.

Theophilus must be appealed to again for enlightenment on the working method of his time. The glass maker first manufactured the colored glass, the recipes for which have been lost, as stated above. We know, however, that metal oxides were used in their preparation, just as to-day.

The painter then prepared a wooden panel, which corresponded in size to the window which was planned. On this panel chalk was scraped, which was then moistened with water, and the resulting mixture spread evenly over the panel. (Cf. Theophilus in his chapter "De componendis fenestris.") As soon as the chalk foundation was dry, the outlines of the design were sketched upon it, the various colors marked with let

ters or figures, and the corresponding pieces of glass laid in place. The outlines which showed through were traced upon the glass pieces with moistened chalk, and were then cut out, according to the outlines, with a red-hot iron. The edges were then smoothed with the "Ferrum grossarium," that is, the grozing-iron. The general use of glazier diamonds for cutting glass first appears in the sixteenth century, although, surprisingly enough, a considerably earlier window has been discovered whose panes have been cut with a diamond. It is that representing the legend of Mary, at Althaus, and dates from the year 1466.

Early Colored Glass

The colored glass of the early period was pot metal glass, permeated with a single color, even in the case of red,

though this point has been a subject of much controversy. My own examinations of red glass in the old windows disclosed a complete permeation of the color, although I must admit that, in the case of red, this was superseded at a very early date by the so-called "flashed glass." This was produced by dipping a metal pipe first in the white and then in the red mass. In this way, when the dab is blown, the inner white mass is covered with a layer of red as with a transparent skin.

For the glass makers of the earlier centuries the preparation of a given color presented very great difficulties, since the color of the glass was determined by the degree of heat of the furnace, which was very hard to regulate. Theophilus remarks with reference to the preparation of colorless glass: "If you notice a pot of melted glass turning yellow, let it boil for three hours and

you will have a clear yellow. If you wish, let it boil for six hours and you will have a red yellow. If you notice, however, that a pot is turning reddish, so that it resembles flesh, take from it and use it for flesh color. Boil the rest for two hours and you will have a bright purple, and another three hours, a real red purple."

It is easy to understand how, in the course of such long and tiresome work, the various panes of glass often differed in strength, and were uneven in thickness in the middle or at the side. The average thickness is one-eighth of an inch. The principal colors used in the early period are red, green, blue and yellow. Yellow was employed mostly for hair, ornamentation of draperies, and articles of adornment such as crowns, scepters, swords, buckles, clasps as well as golden utensils, goblets and halos, or architectural decoration, but

seldom for draperies. Red and green appeared, for the most part, in one tone only, while blue ranges from light to very dark blue, at a very early date.

Completion of the Windows

Let us turn again to the further completion of the windows. After the panes of glass have been properly cut and prepared, they were painted with Grisaille, which was changed into enamel in the kiln. For the pieces that serve to frame the real picture, Theophilus recommends flowers, branches, leaves and bands as decoration. When the firing, or burning in, of the Grisaille paint had been accomplished successfully, the glass was laid on the previously prepared board, and leaded up. This was done by bending the strips of lead around each pane of glass, as it lay upon the board, and then the various

leaded pieces were soldered together. Whenever one color impinged upon another in the design, a strip of lead had to be inserted. Lead strips were also required to hold together the small panes, which were only the size of a hand in one and the same color, since larger surfaces often had to be made in a single color. These strips of lead were called "emergency leads" to distinguish them from the larger cames used for the outlines. Where it was impossible to follow these accurately, the fine lines and curves of the contours, with the outline-lead, as it occurred frequently in the case of finely wound foliage, etc., the surface between the painted outline and the lead was filled in with black. Even in cutting the glass, it was not always possible to follow faithfully the outlines of the drawing. After having been put together with the various small panes of glass, the window was now set up in the

opening, and fastened to the iron bars of the opening, by means of lead strips which were soldered on at equal intervals from each other where the leads crossed.

On the inner surface of the window opening a groove was chiselled into the stone mullion, through which vertical and horizontal iron rods pass at certain intervals. The window is slipped into this groove and fastened with lime. It is further secured by other thin iron bars, "cross-bars," which were horizontally fastened upon the back of the window. The same manner of fastening which is used for the long windows is used also for the rose-windows.

SECOND PERIOD (Transitional)

The Flight into Egypt. French glass, middle of Fourteenth Century.

About 1360.

THE MIDDLE PERIOD

1350-1500 A.D.

The Discovery of Silver Stain

The Middle period is to a certain degree a transition period in the art of glass painting, which, still at this time, clings to its traditions, while on the other hand it employs to a greater or less extent the new achievements of technique and brings into service two new inventions which characterize particularly this period in the history of the art. These two inventions, probably made about the middle of the fourteenth century, and more widely extended during the latter half of that century, are the discovery of a new color, "silver Stain" (oxide or chloride of silver) and "the abrasion of flashed glass."

Both inventions, although they can only be considered a step forward in the art of glass painting, gradually effect

so complete a transformation in glass painting that it departs to an even greater degree from the style peculiar to itself. We found that during the early period there was only one color that was fixed by being burnt in, namely "Grisaille-paint." Now a new color appears with the same quality, namely the so-called silver Stain, a clear and indelible yellow, varying from pale lemon to deep orange. When and by whom this discovery had been made, has remained a secret.

The Abrasion of Flashed Glass

The second invention, the abrasion of flashed glass, consisted in the "abrasion" in certain places of the red "flashed" glass so as to produce white spots on the pane. "Flashed" glass consists of a thin film or "flash" of color over the surface of white or "dirty"

SECOND PERIOD (Transitional)

The presentation of Christ in the temple. French glass, middle of Fourteenth Century.

About 1360.

white glass, while colored glass proper is being colored all through and is known by the name of "pot metal." By chipping with a burin (an instrument used in engraving) or by grinding away the colored film in certain places (done with hydrofluoric acid since the beginning of the nineteenth century) white and color is obtained on the same piece of glass. If the two enamel colors, Grisaille paint and silver Stain, were now applied to the abraded panes, four colors could be produced upon the same piece of glass, namely red, white, black and yellow. Frequently one side was painted with Grisaille, the other side of the glass with silver Stain. From now on, also, fine lines and borders could be painted, as well as golden diapers upon the draperies, without disturbing the design by the emergency lead, since it was no longer necessary to include additional glass pieces. It was also possible

to obtain green by painting a blue pane of glass upon the back with yellow. So new combinations constantly made their appearance, especially with the introduction of green and violet "flashed glass" which made possible a large number of finer and more subtle effects. At the same time greater skill was developed in producing glass panes of larger size, thus enhancing the artistic possibilities.

THE LATE PERIOD

From 1500 to 1650

From a technical standpoint, there is little to be said with regard to this third period. Technical improvements had to do mostly with the change in the combination of colors and the style of painting brought about by the invention of enamel colors in this period. A third glass paint, "iron-red," was added about the year 1550 by an invention of Jean Cousin, a famous glass painter of Paris, with which a beautiful red could be produced, and which was also used extensively as a flesh tint. Then in the sixteenth and seventeenth centuries, glass enamels were also invented in other colors, such as blue, green, violet and other shades. For this reason, this period has often been called the period of varicolored enamel. The Stained glass window now makes a much more

richly colored impression than in previous times, although, on the other hand, the brilliancy of the colors deteriorated, as they were not burnt in any longer with the former care, and thus left much to be desired regarding their permanence. The size of the glass panes, which had increased considerably during the Middle period, had now become so large that the emergency lead could be done away with entirely, and the painter was able to work in all colors upon white panes of any size.

Changes in the Style of Glass Painting

Old Windows in England and Western Europe

The oldest Stained glass window that remained to us is the window in Dijon, already alluded to, which dates from about the middle of the eighth century. Then follows a series of five windows

from the middle of the eleventh century, which are in the center of the cathedral of Augsburg. Thereafter appears early twelfth century glass at Le Mans and Poitiers. Late twelfth century glass can be seen at Canterbury, St. Denis and Chartres. Early thirteenth century work is still to be found at Chartres, Sens, Canterbury and York. Late thirteenth century work is preserved at Notre Dame, Sainte-Chapelle, Bourges, Rouen, Strassburg, Neuvillers, St.-Denis, Angers, Chalons, Poitiers, Sens, Chartres, Canterbury, Lincoln, Westminster Abbey, Salisbury, Beverley Minster, York Minster and Lausanne (Switzerland).

The wonderful windows of the church in Koenigsfelden, Switzerland, date from the beginning of the fourteenth century, as does most of the old church-glass in the north of France, Flanders and England. Stained glass

appeared later in Holland, during the fifteenth and sixteenth centuries, and gained a world-wide reputation, because of its peculiar beauty (mostly Grisaille-work). Spain, too, and Italy, especially Venice and Florence, can boast of charming examples.

Swiss Glass

The Stained glass art of Switzerland, which produced the most fascinating miniature windows, called "Wappen-scheibe" (armorial or heraldic panel), "Standesscheibe" (Corporation-panel) or "Kabinettscheibe" (Marriage panel) mostly of the fifteenth, sixteenth and seventeenth centuries, is well represented everywhere. No other country indeed with the exception of Holland, possesses so much Stained glass, particularly miniature paintings. The best talents devoted themselves to this

SECOND PERIOD (Transitional)

Saint Florentius healing the King's daughter. Late Fourteenth Century glass of French influence.

About 1390.

art, and an endless number of artists have illustrated in skillfully executed glass paintings the history of the little republic, with its noble record of glorious achievements.

I will name here only a few, such as Carl von Egeri, Zurich; Niclavs Bluntschli, Zurich; Andreas Hoer, St. Gall; Hans Funk, Bern; Franz Fallenter, Lucerne; and the glass painters Mueller, Brandenberg and Zumbach from Zug.

Cistercian Interdict

We may well conclude that the art of glass painting appeared during the eighth century in France and spread from there gradually through the agency of the Benedictine monks. Those monastic orders, however, whose rules called for a strict simplicity, condemned entirely, or in part, the gorgeous ornament of painted glass win-

dows. Thus the general chapter of the Cistercians decreed in the year 1134 that the windows of the churches of the order should be made only of clear, uncolored glass.

A more drastic order, dating from the year 1182, however, says, that the Stained glass windows must be removed within two years. The instruction reads: "Vitreae picturae infra terminum duorum annorum emendentur; alioquin ex nunc abbas et prior et celerarius omni sexta feria jejunent in pane et aqua donec sint emendatae." (Glass pictures must be removed within the term of two years, otherwise the abbot, prior and cellarer will have to fast with bread and water every Friday until the windows have been changed).

As a substitute for Stained glass, the Cistercians turned for the adornment of their churches to the splendid Grisaille-windows, painted in gray, which

I shall speak of later, or to windows of clear, colorless glass, with small panes arranged in geometric figures and decorative bands, forming diamonds, strips, triangles, hexagons, octagons, circles and stars. A great variety of patterns could be produced in the arrangement of these geometric figures, and the patterns produced by the alternation of the lead casings with the clear glass produced the impression of a white carpet ornamented with a dark design.

Spreading of the Art to Secular Buildings

If we wish to regard the changes of style in Stained glass as a whole, we must be guided by the division of the technical development into the three periods, that have been described above. It has been explained, too, how the invention and employment of new colors

exerted the most important influence upon the methods of staining and painting the glass, and therefore upon the style and ideals of the art itself.

To judge from the works preserved to us, Stained glass extended already in the early period over a wide area and had attained universal popularity. It contributed for the most part to the adornment of the churches, by painted glass windows, which, like varicolored carpets, harmonized with the general tone of decoration of the church; not, as to-day, disagreeing with the monotone of the church interior. The walls were covered with mural paintings, the capitals of the pillars, the keystones, the rims of the arches, the sculptures were painted. At the altars, magnificently adorned in color, the priests officiated at mass in robes ornamented with costly colored embroideries and bordered with gold and precious stones.

But also in convents and castles the art of Stained glass soon flourished. In the convents it was the cloisters to which this new art of decoration was first applied, and for its employment in castles, we have many instances, such as the decoration of the castle of Karlstein in Bohemia by Emperor Charles IV. And young Titurel, about the year 1270, depicts for us with genuine enthusiasm the magnificence of the glass windows in the temple of the Holy Grail:

"According to the stones the sun was colored
When sending through the windows golden rays,
That was a wondrous pleasure for the eyes."

Influence of the Gothic Style

The appearance of the Gothic style, as has been pointed out above, gave a strong impetus to the extension of the art of Stained glass; but in another respect, it exerted an unfavorable influence. As the new style of architecture

developed, it laid ever greater emphasis on height, and the window openings were compelled to follow these principles in their form. At first, without partition, they were later separated by a thin mullion, which divided the window into two parts. Thus, the space to which the design was to be adapted was constantly increased in height, and contracted in width. Even more serious in its disturbing effect upon the art of glass painting was the custom, introduced later on, of dividing the window by two mullions, thereby seriously impairing the beautiful tapestry effect of the Stained glass.

With the appearance of windows with tracery lights in the fifteenth century, which produced manifold new forms with their cusps, the Stained glass which filled the space changed its forms to correspond, chiefly by means of small decorative panes. For the glass

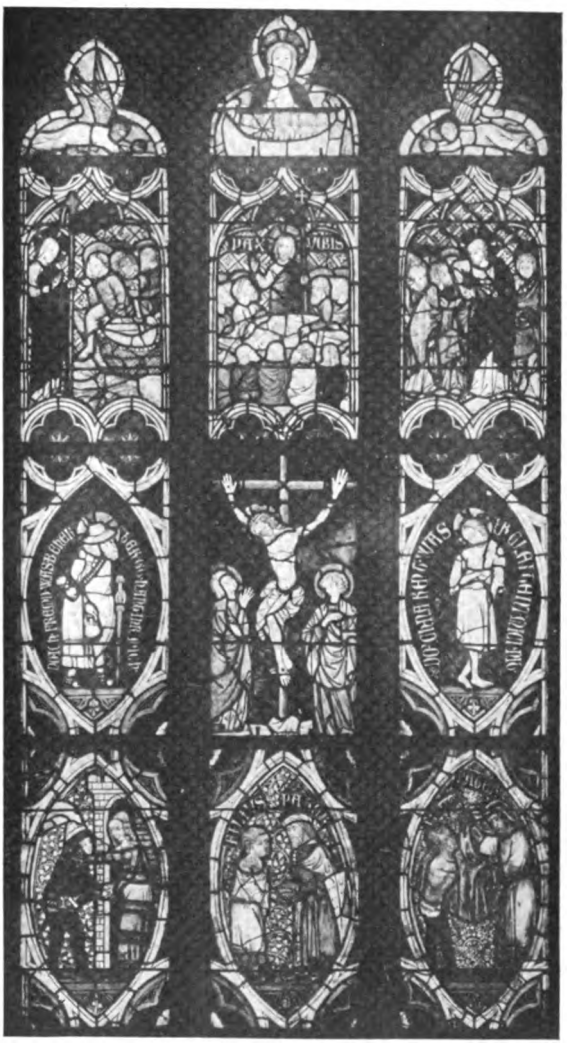
windows with single upright figures these new window forms were still quite appropriate, although the height of the window was often no longer proportioned, with the greatly attenuated width of the painting, made necessary by the partition into sections. The partition made by the cross-bars was also, aside from a few exceptions, more and more neglected. An attempt was often made to eliminate, or conceal, this disproportion by using the cross-bars as dividing lines for the design itself.

Changes in the Material

New conditions for the development of the art of glass painting were also brought forth by the changes, not only in the architectural style, but also in the material upon which, and with which, the designs were carried out, a new determining factor, to which mural and

panel painting were not subject. Glass painting could not develop freely, like its sister-art of panel painting, which was able, without check or hindrance, to delight the eye with the charm of landscape and its distant perspectives or the representation of genre and intimate interiors.

Every type of artistic representation has its peculiar quality, determined for it by the special characteristics of the material, which differentiate it from other material. So glass painting is and always has been definitely limited within certain bounds by the material, i.e., transparent glass. During the early period the art did not transgress these bounds, but submitted to the fixed limitations imposed by the character of the art, so that the works of Stained glass resembled tapestry and were not unlike flat painting. This condition cannot, however, be ascribed to the con-



Early Fifteenth Century French glass.
Medallion window.

About 1420.

scious design of the artist. The glass painters of this period were not clearly aware that the flat manner style of painting, which they employed, was the only one suitable for glass painting. They were simply unable to paint in any other manner. And if we examine the mural and miniature painting of the same period for purposes of comparison, we will meet the same phenomena there, where the artist was not bound by the limitation of his material as in glass painting. For us, however, who are able to view the development of the art of glass painting as a whole, down through the centuries, following every changing phase of the art in place and practice, it is easy to discern the appropriate style for glass painting. And we find this most perfect style in the tapestry effect of the earlier windows, where the eye is not distracted by the small views and perspectives of land-

scape, but is left free to receive the "impression of the whole," and to absorb the entire effect of the design.

Tapestry Effect of Stained Glass Windows

The best conception of this tapestry effect of Stained glass windows may be obtained from the decorative windows, for example those of the church in Koenigsfelden. Thus too the "medallion windows" of the older period, although filled with small figures and groups, yet produce this effect of tapestry by the beautiful harmonizing of colors, which is after all the determining factor in the general impression. It was not until the later period that glass painters departed with mighty strides from this beautiful tapestry effect, and fell to imitating the panel painters in everything down to the mi-

nutest detail, in the coloring, the shading, and the perspective. This tendency was responsible to a great extent for the stylistic decline of glass painting, gradual and unnoticed as it was. For, however great the artistic skill expended, it could only be considered a decline when a piece of glass, which should properly produce an effect at a distance, could only be appreciated when viewed quite near by. An atmospheric perspective of landscape is therefore quite unsuited to an art which works with transparent panes of glass and runs counter to all its laws of style.

Lack of Perspective

Figures were never placed before each other in the Early period. The old masters were still incapable of making the individual figure stand out solidly. Their art was shown rather in the

simple outline drawings, with finer lines within, for the indication of draperies and other details, and was practiced according to these principles. In the simple, primitive Grisaille painting, the aim was to depict crown and scepter of the king, or the attributes of the saint, goblet, book, rod and the like, so that these objects stood out from the figure, and a certain perspective was achieved. But these early designs relied purely upon drawing for their effect, like the miniatures in the manuscripts.

SECOND PART

ORNAMENTATION

Decorative Character of Glass Painting

The decorative character of glass painting determines the importance of ornamentation for the whole window as well as for the border and the accessories. Ornamentation of church windows by decorative combination of panes of Stained glass must be thought of as the first achievements of the newly invented art of glass painting.

We find indeed in glass painting the same decorative motifs as in mural and miniature painting, and it is precisely the geometrical form of ornamentation in which the decorative spirit finds its expression in the early phases of glass painting. The problem of glass painting is the ornamentation of a flat surface and the most obvious method was, to divide this space by stripes and lines

into fields and these again into smaller ones. Thus a great diversification of design and a highly decorative effect was obtained by the interweaving of lines and spaces, the introduction of decorative motifs and the variation of the color combination.

Plant Motifs

During the Carolingian period (750-850) the use of foliage, the plant motif of the antique, was introduced into decorative art. Greater naturalism, however, was developed in these plant forms by introducing motifs taken from nature and by giving life and variety to the foliage. The new naturalistic forms were adopted with enthusiasm by the early glass painters and supplanted as a decorative device the geometrical forms which were thus reduced to a secondary rôle, and used almost exclusively for the

THIRD PERIOD (Transitional)

Representing Pierre Brun, donor of a window (Museum Saverne) (Bas Rhin).

1499

borders of paintings. It is interesting to observe how the foliage is gradually combined with the interlacing bands. Lead ornaments are placed at the ends of the bands during the earlier period, which, with the later development of the naturalistic spirit, evolve into branches and stems and become an integral part of the plant motif. At the same time the leaf acquired the natural ribs and veins instead of the stylized branching running in parallel lines.

As the Gothic style became prevalent during the thirteenth century, the influence of stylistic severity transformed the traditional manner of ornamentation and led through a long series of gradual transitions to a completely naturalistic reproduction of actual plant forms.

Up to the fifteenth century, the tendency is noticeable to employ the most varied and complicated designs, but

these are gradually transformed by the exaggeration of the Gothic style into extremely pointed and bizarre effects.

Influence of the Renaissance

These motifs were gradually replaced in the new style, which supplanted the Gothic, by the rich and varied forms of the Renaissance, reverting thus to the forms of the Antique, as it had been the case with the Carolingian leaf during the earlier period. The origin of the old Christian and Byzantine decorative motifs, and their inner relation to primitive decorative art, has been traced by Riegl in his "Problems of Style." He shows that the fundamental decorative motifs have remained the same from the period of Mycenæ and Tiryns to the Christian era, although they have been transposed and transformed frequently. The inner law, that rules the world of

art, as well as of nature, has been well described by the great architect, Gottfried Semper:

"Nature, in spite of its infinite riches, is nevertheless sparing in its fundamental forms, and repeats them continually, modifying them according to the stage of development and conditions of existence. Just as nature has its own evolution, in which the old elements survive in every new stage of development, so art, too, exhibits certain forms or types, similar to those of nature, which are found at the earliest stage of development, and reappear in continually changing forms in all later stages. There is no element of chance in this process, but everything is determined by the circumstances."

This observation receives universal corroboration from monumental remains. A small delicate rosette, for in-

stance, adorns the forehead of the daughter of a king in a Stained glass window of the fifteenth century; but the princess Nofret on an old Egyptian monument wears a similar decoration. The same repetition is found in the case of the other motifs, such as flower, stem, foliage, branching, and of geometric forms, such as triangle, quadrangle, hexagon and diamond. These ornaments were merely adapted by each people to its own needs in the terms of its own spirit. The geometrical motif, which remains the same in form, though arranged in new and varied combinations, is most clearly and most closely connected with the earliest forms of art.

Painted Architecture

There is in painted architecture another decorative idea of importance for

glass painting, in addition to geometrical and leaf design. Architecture in glass painting either surrounds the painted figure in the form of a niche, or it extends over the upper part of the window above the figure or picture. In the application of this idea, we find employed characteristic examples of all styles and periods, from the earliest to the latest and most highly developed, from the Romanesque and the Gothic, to the lively forms of the Renaissance. We find thus embodied the severity and simplicity of the Romanesque, and the diversity and delicacy of detail of the Gothic, with its luxuriant variety of forms and figures.

Diaper Backgrounds

At a very early date, the background, alternately of red and blue, is covered

with diaper design, applied in Grisaille paint, or erased with the stick from the matted background. This process is also used, as we have seen already, in the case of "Grisaille windows," which are, for the most part, decorative in themselves, and seldom combined with colored medallions. These "Grisaille windows" were very popular in the thirteenth and fourteenth centuries, and were generally used in the buildings erected by the Cistercians, which were thus easily distinguishable from other churches, where a chiaroscuro of color from the Stained windows prevailed. Grisaille we find used, but rarely, in a design with colored glass, but very frequently as a subordinate decoration with colored medallions, or for framing, or outlining. The simple decorative effect is often increased by the introduction of small pieces of colored glass, raised rosettes or small round panes.

Draperies and Adornments

Decorative details are of great value in determining the date of Stained glass windows, particularly in the case of those where the figures have been more or less restored. For, even where the details have not been executed with the same skill and thoroughness, as the rest of the painting, they nevertheless, almost without exception, belong to the same period.

The costumes of Saints were from the earliest times depicted in an idealized form, which was maintained during later periods, while other figures usually appear in contemporary costumes—that is, in the fashion worn in the period the window is made. In this respect—glass painting follows closely the miniature painting of the period and patterns itself after it. We find a large number of

such costumes depicted in the "Hortus Deliciarum" of Herrade de Lansberg. Costume, as a matter of fact, is an important feature in Stained glass windows, whose high degree of preservation, in spite of all destruction, provides us with a rich source of information with regard to costumes, arms, vessels, jewelry, and articles of adornment of former times. Any discrepancies between the costumes that appear in the windows and the fashion of the period are to be explained in many cases, and especially in the earliest period, by the fact that the former were decorated somewhat too lavishly with embroidery, and other forms of adornment. This overornamentation may be due to the limited number of colors at the disposal of the painters, who therefore sought to attain a certain variety in their paintings by means of gold borders and ornamentation of all kinds, and thus

to enhance the ceremonial glow of the holy, or princely, figures in the glass paintings.

Flesh Color in Figure Painting

Theophilus' instructions with regard to the use of color for figures state that flesh color is usually employed for the nude, but in the case of feminine figures it is often replaced by a sort of white. The hair is yellow or brown; in the case of the aged, white. The brown color of the hair was obtained by a wash of Grisaille, which turned brown in the enameling process, instead of black, as would have been the case if a larger quantity of color had been used.

Changes in Representation of Architecture

The architecture is of great interest in the paintings of the early period.

Whereas in the later periods we find the architecture constantly approaching more closely to nature, in color of the stone as well as in its structural form, the painted architecture of the early period makes no attempt at verisimilitude in color or form. The artist was interested chiefly in the color harmony of the glass paintings and was quite indifferent to the claims of realism or nature. The colors of the painted architecture of this period are therefore subordinated to the general color scheme of the glass painting. If ruby is the dominant color, then the columns may be ruby; if blue must be the predominant color, perhaps on account of the background, then we have a blue arch, or white columns with yellow capitals and blue bases.

The entire architectural scheme is fantastic. Columns are introduced for filling the space or for similar rea-

sons. They are omitted in other places where the structural principle would require them. The vaulting is often depicted as to be of no use for its architectural purpose, if so constructed in reality. Keystones are placed where there is no meeting of the arms of arches. Columns are often so slender as to belie their real purpose of support. The sole standard of choice here, as in miniature painting, is the color effect. The painter in his design considers only the picturesque effect and omits a column without scruples if he needs the space for a figure.

There is still another reason that adds to our interest for the painted architecture of these times. Transparency of structure is one of the prominent features of the architecture, depicted in early glass paintings. There are no walls, but columns only, or four supports with a roof. They were simply im-

itations of the structures that served as scenery for the Mystery or Passion plays of the Middle Ages. The Medieval plays exerted a very powerful influence on contemporary art, as will be shown later on in reviewing the scenes and events depicted in glass paintings. For the purpose of these plays was to edify the masses. They were first produced in churches and later on in the open, as the Middle Ages did not know a theater in the antique or modern sense. Light wooden structures, the so-called "stands," were erected for these plays to be removed again after the performance. These structures consisted—exactly like the painted architecture in Stained glass—of columns covered with a roof. Otherwise the spectators who were standing in a circle, or semicircle, around this stage, would not have been able to follow the action of the play. The architecture of these religious

plays was imitated by the glass painters of the Medieval period as the scenes and events of these early dramas were depicted in the windows.

Changes in Composition

Since the last half of the fourteenth century, coats-of-arms, usually those of the donor, were inserted in the Stained windows. These coats-of-arms, usually surrounded by architectural designs, occupied generally the panel at the base of the window. The next two panels were filled with the standing figure, while the canopy or gable-beard above was frequently extended over five panels. The remainder of the window up to the top was filled out with ornamented panels. During the later years of the middle period, windows with standing figures became more rare. In glass paintings, as in ordinary paintings,

scenes with more than one figure representing legends of the Saints or incidents from the Old or New Testament become more frequent. These group pictures, most of them in smaller size, occupy the various divisions of the windows and show in the most interesting way the development of the tendency to a more subtle observation of nature and to a more daring art of representation. The borders disappear, often there remains but a white strip of glass separating the scene or figure from the window frame. Frequently even this intermediary strip is omitted, so that the painting of the figure or scene appears as if it were cut out of the window frame. Scenes with figures occur in the early Gothic stage; their popularity increases however in later times while the windows with single figures become more rare.

There are a few characteristic fea-

tures that distinguish these later windows from those of the early Gothic. Instead of the group pictures of the earlier Gothic, every panel in the later windows contains a scene, while the division through lead strips—a method frequently employed in earlier windows —is avoided. But they lack also the harmonic borders of former times which produced in the earlier windows an effect similar to framed pictures. The method of flat painting, employed in earlier windows, was abandoned as a result of the improvement of technical processes, which in turn, changed the technique of painting. The lifelike figures move within a walled-in space. The architectural parts do not resemble any longer those "stands" of the Mystery Plays described above, for they are an imitation of real architecture in color and structure. The figures move freely and naturally through the interiors, de-

picted with realistic taste. The rooms are represented with all their furnishings, large and small, that form a part of domestic life.

The Study of Perspective

The problems of perspective are studied with great care and although errors of seeing and drawing may often be detected, our interest is attracted by the natural realism and faithful correctness of every detail.

Landscape

The landscape also appears in the windows of the later Gothic. A blue pane of glass represents the sky in which sun, moon and stars are indicated with yellow. The point of perspective in the landscapes, which are still of comparatively rare occurrence

in this Middle period, is rather high up in the picture, so that the landscape gives one the impression of an ascending hill on the top of which the walls of a city with towers and roofs are disclosed.

Over-indulgence in Colors

One weakness of this Middle period arises from the great variety of colors and mixtures of colors at the disposal of the painters, which leads to the temptation of trying to produce a juxtaposition and conglomeration of colors that remains far behind the wonderful harmony of colors in former times.

Signs of Transition

The Stained glass windows of the later part of this period do not terminate any longer in the ascending, high-vaulted canopies of the earlier Gothic,

but in a low baldachin-like architectural design. With regard to the last part of the Middle period, as well as to the late period, the following remarks by Kugler in his "History of Painting" may be quoted:

"Figures idealized or symmetrically arranged groups no longer appear isolated in the design. The rigid monotonous background is eliminated, while perspective is opened to the eye and its possibilities utilized to their fullest extent. All natural phenomena, the earth and the sky, distance and proximity, mountainsides, green meadows, fruit-laden trees, the comfort and adornment of human dwellings, all the equipment and necessities of life are represented in the works of this period. The human figures appear in their environments, and joined in organic relation with them, they form a complete unit. The details are recorded with the most metic-

ulous care and an admirable effect of realism is achieved. Faults may still be detected in places, as rigidities in the modeling and in the draping of the garments, nor is there yet a correct anatomical understanding of the human body. These defects, however, disappear in the general harmony of the whole, which is achieved by the blending of clear and brilliant colors and by the deep sympathy of the interpretation which presents to us the glorification and transfiguration of earthly life in the midst of all its restricted conditions."

Neglect of Unity of Style

During the latter period, as the rivalry between glass painting and panel painting increased, less consideration was given to the problem of adapting the work to the style of the church for which it was executed and to harmoniz-

ing it with other decorations. In the Stained glass windows of this period, no attention was paid to the stone pillars, which divided the window openings, so that the paintings were partly covered by the pillars. For the most part, the figures are related to each other irrespective of the stone pillars. We find windows with wonderful Renaissance architecture, which are inserted in pointed window openings of the Gothic period. At the tops of the windows we see panels with such small and delicately drawn figures that it is almost impossible for us to recognize these figures with naked eyes. The panels, made in larger and larger sizes, were covered with representations which were adapted only for a close view but not for a large window, and the tapestry-like effect of the old windows disappeared more and more, until it vanished entirely.

Employment of Non-permanent Colors

A further disadvantage for the art of glass painting consisted in the fact that colors were indicated in the design, or in the order for the window, for which the glass painter did not possess any sufficiently permanent colors for enameling. The bad results soon became apparent in the blurring and fading of the colors used in such glass paintings. At the present time certain parts of the design appear to be missing in these windows, while the color has entirely disappeared. The Grisaille paint used for the drawing of the faces was often so badly annealed that it rapidly disappeared, a result all the more regrettable as the facial expression is often the chief clew to the identity of a master.

It is during the sixteenth and seven-

teenth centuries that a number of new color-mixtures appears, whose vivid and inharmonious combinations produced an unpleasing effect.

Figures and Groups of Figures

Here and there in the representations of the sixteenth century we find the popular pictures of the "Biblia Pauperum" more or less adapted to the style of the time. Individual figures are again used more generally during this period. They are usually figures representing Saints, together with their attributes, which look down upon us in plastic reproduction, often in life size. Frequently, in a large three-light window, we find the Crucifixion group, so that the center light shows the Savior on the Cross, while the windows at the right and left represent Saint Mary and Saint John, both in life size like the

Savior. Windows depicting complete legends of the Saints or Christ's Passion became more rare towards the end of the period. Where they occur, they rival oil painting in every detail of their execution.

Style of Painting

The style of painting includes the grouping of figures as well as architecture and landscape, the latter particularly being developed most carefully. We see wooded heights, roads or plains. In the distance there is a herd grazing, an ascending hill expands into a chain of mountains. Or we find a beleaguered city, reproduced in these windows, or a guarded camp and all the lansquenets, battle and war scenes with which we have become familiar through the paintings of this period. We sometimes even gain the

impression that the painter attached more importance to the representation of the landscape than to the action. With what faithfulness and accuracy are the details of craftsmanship depicted, with what keen realism are the figures represented in action! The architecture is faithfully reproduced to the smallest details with its gorgeous Renaissance capitals, richly sculptured, and garlands of fruit and foliage.

Heraldic Panels

Another variety of Stained glass design, the Heraldic Panel ("Wappenscheibe") made its appearance during the times of the Reformation. The first examples of this new development are to be found during the closing years of the Gothic period. The most perfect specimens, however, were produced during the Renaissance period.

By the Author. Miniature glass panel (size of original), representing Christ on the Cross. The smallest glass panel in existence.

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This development was encouraged by three factors:

1. The technique of Stained glass had progressed to a point where it could paint on absolutely white glass with the various enamel colors and with such delicacy and refinement that the effect could only be appreciated fully if viewed at close range.

2. The Reformation banished colored windows from many churches. Coats-of-arms, however, could be introduced as painted glass panels in the otherwise entirely white windows of the family chapel, or of a church that had received benefits from the family.

3. The custom had become general of displaying the arms of patrician or middle-class families in the council chambers and guild halls, or as decoration in residences.. The beginning of this custom may be observed in individual instances as early as the middle of

the fourteenth century. The use of heraldic panels became prevalent, however, only during the sixteenth and seventeenth centuries. This was due in great measure to the growing importance of the middle class since the end of the Middle Ages.

Armorial Subjects

In these heraldic panels there are represented the heralds, shield bearers, mythological figures, landscapes, allegories of the most varied description, genre scenes, in short, everything that is known to us through the oil paintings of that time. It was especially the portrait showing the master of the house or his wife, or both together, often surrounded by their children, which enjoyed an increasing popularity. It must be taken into consideration in this connection that the ban on colored glass by Protestant churches had made the

world of the artist in Stained glass a very precarious profession and that many artists through lack of large orders had to take up some other occupation. Those, however, who remained true to their art, devoted themselves to the spreading fashion of heraldic painting, in order to find a substitute for the larger orders of former times. But in this way the possibility of obtaining really important orders vanished more and more.

Causes of the Decay of the Art

After the destruction caused by the wars of the Reformation and the Thirty Years' War, the art of Stained glass would have recovered like other arts in spite of the general impoverishment, if the prejudice against Stained glass windows in churches had not interfered with the recovery of this art. No

new windows were ordered and finished, and many old ones were removed. The church, for which, in former centuries, the art of Staining windows had done its most beautiful and sublime work, adopted a style of architecture, since the seventeenth century, which was quite incompatible with the character of the art.

The secular population was impoverished after the Thirty Years' War and exhausted by the protracted anxiety and insecurity. It had lost the love and appreciation for Stained glass, nor did it have the means, like its ancestors, to decorate its home or make its environment attractive and comfortable. Thus the instructions and directions for the making of windows and the preparation of colors were more and more forgotten, and finally, the art of Stained glass passed into oblivion.

A LIST OF ARTISTS IN GLASS

A LIST OF ARTISTS IN GLASS FROM THE FOURTEENTH TO THE SEVENTEENTH CENTURY

In the following list the dates of the earliest and latest works known are substituted for the dates of birth and death wherever the latter were unobtainable. It is extremely difficult to trace the authorship of the earliest windows as the custom of signing works of art became only prevalent after the fourteenth century.

I. FRENCH ARTISTS

(Peintre-Verriers Français)

Their creations with dates of earliest or latest works known.

ANQUETIL, PIERRE	Rouen Saint Maclou de Rouen	1541-1598
BARBE, GUILLAUME	Rouen Cathédrale de Rouen	1549-1585
BARBE, JEAN, FILS	Rouen Cathédrale de Rouen, Château de Gaillon	1488-1530
BACOT, PHILIPPE	Boussi	1551-1565
BERNIER, JEAN	Evreux	1555-1560
BESOCHE, JEAN	Rouen Saint Maclou de Rouen	1595-1611
BESOCHE, MICHEL	Rouen Saint Maclou de Rouen	
BEUSELIN, FRÈRES	Dreux	1563-1581
BOSC (GILLES ET MICHEL DU)	Saint-Georges-d'Aulney	1549-1580

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BOUCH, VALENTIN	Metz (Lorraine)	1475-1541
	Cathédrale de Metz	
BRICE, GUILLAUME	Paris	1686-1768
	Notre-Dame de Paris, Sainte Chapelle	
BRUN, (LE) FRANÇOIS	Caudebec	1729-1783
	Saint-Nicolas-de-la Taille	
CANONCE, GUILLAUME	Rouen	1384-1386
	Cathédrale de Rouen	
CHAMU, PIERRE	Paris	1569-1619
	Église Saint-Merry de Paris	
CHENESSON, ANTOINE	Orléans	1507-1508
	Château de Gaillon	
CLAUDE, MARCEL	Marseille	1468-1536
	Chapelle du Vatican, Rome	
CLAUDE, GUILLAUME (Frère)	Marseille	1465-1537
	Église Sainte-Marie de Popolo et del Anima, Rome	
CLÉMENT	Chartres	1402-1450
	Cathédrale de Rouen	
CLERC, PÈRE ET FILS	Paris	1480-1500
	Église de la paroisse de Saint-Sulpice; Chapelle du collège Mazarin	
COCHIN, BENOÎT	Troyes	1712-1789
COMMONASSE, GUILLAUME	Auxerre	1551-1618
	Église-Cathédrale d'Auxerre	
COUSIN, JEAN	Paris	1551-1584
Surnommé le Michel-Ange français,	Saint-Gervais, Paris, Château d'Anet, Sainte Chapelle-de-Vin-	

A List of Artists in Glass

		cennes, Moret, Fontainebleau
Inventeur de l'Émail rouge, nommé "Rouge, Jean Cousin."		Église de Saint-Romain, Fontainebleau, Église de Saint-Etienne-du-Mont, Paris, Chapelle du Château de Fleurigny, Sens
DAMAIGNE, ROBIN	Rouen	1421-1477 Cathédrale de Rouen
DESANGIVES, NICOLAS très célèbre peintre-verrier français	Paris	1465-1551 Charniers de Saint-Paul, Paris, Chapelle Royale de Saint-Denis, Paris
DESMOLES, ARNAUD	Auch en Gascogne,	1432-1514 Cathédrale d'Auch
DOR, JEAN-FRANÇOIS	Paris	1717-1718 Cloître des Carmes des Chaussés, Paris
EUDIER, PIERRE	Fécamp	1561-1570
EVRARD, MATHIEU	Rouen	1574-1603 Cathédrale de Rouen
EVRARD, MICHEL	Rouen	1541-1591 Cathédrale de Rouen, Église de Saint Maclou, Rouen
GERMAIN, MICHEL	Auxerre	1501-1569 Cathédrale d'Auxerre
GOBLET, FRÈRE ANTOINE	Dinan	1676-1721
GONTIER, JEAN ET LÉONARD, Frères, (Linard, Madrain et Cochin)	Troyes	1550-1600 La cathédrale de Troyes,
JEAN ET LEONARD, Bénédictines, fort recom-		La collégiale de Troyes, Saint-Martin-es-Vignes, Moutier-la-Celle,

	mandés par le Cardinal Richelieu	Chapelle de la paroisse de Saint-Étienne, Sanctuaire de Saint-Pantaléon, Troyes
GOUST, PHILIPPE	Rouen	1605-1620 Notre Dame de Rouen
GRADVILLE, GUILLAUME DE	Rouen	1426-1432 Cathédrale de Rouen
HAVÈNE, GABRIEL	Rouen	1509-1530 Saint Maclou de Rouen
HENRIET, CLAUDE ET ISRAËL, (père et fils)	Chalons sur Marne	1502-1558 Cathédrale de Chalons, Saint-Étienne-du-Mont, Paris
HÉRON, SÉRASTIEN,	Paris	1562-1630 Église Saint-Merry de Paris, Saint-André-des-Arts, Paris
HERUSSE, ROBERT, "Maître Robert Hérusse, Maître des Arts et Sciences, de Sculpture et Peinture"	Anet	1549-1594
HUBERT, MARTIN	Gurgues	1521-1570 Saint-Georges-d'Aulney
JOYSE, CARDIN	Rouen	1465-1536 Saint-Ouen de Rouen
LAGOUBAULDE, (LE) RENÉ	Caen	1541-1599
LAGOUBAULDE, (LE) REMY	Caen	1568-1619
LANGLOIS, FRANÇOIS	Paris	1651-1725 Abbaye de Sainte-Geneviève, Paris
LÉCUYÉ, JEAN	Bourges	1503-1569

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LEQUIER, JEAN,	Bourges	1489-1556
	Cathédrale de Bourges, Saint-Jean-des-Champs	
LINARD, PIERRE	Troyes	1577-1601
LUCAS, LAURENT,	Anet,	1550-1609
MADRAIN, BENOÎT	Troyes	1530-1581
MAGET, MAURICE (Frère)	Nevers	1671-1720
MAHIET, EVRARD,	Rouen	1574-1603
MASSON, GEOFFROY	Rouen	1459-1516
MATHIEU, PIERRE,	Arras	1589-1602
MÉHESTRE, SIMON	Caen	1538-1581
MELLEIN, HENRI	Bourges	1381-1447
	Vitrail représentant le portrait de Jeanne d'Arc dans l'Église de Saint-Paul de Paris	
MICHU, BENOÎT	Paris	1641-1730
	Cloître des Feuillans, Rue Saint-Honoré, Paris,	
	Chapelle de Versailles, Église des Invalides,	
	Cathédrale de Paris,	
	Abbaye de Sainte-Géneviève du Mont,	
	Chapelle de Saint-Étienne du Mont	
MINOUFLET, CHARLES	Soissons	1622-1661
	Abbaye de Saint-Niçaise, Reims	
MONNIER, PÈRE ET FILS	Blois	1547-1623
MONNIER, JEAN	Paris	1581-1649
	Charniers de Saint-Paul, Paris	

MONORI, DOMINIC	Abbaye de Cerfroy en Soissonais 1493-1551 Réfecture de ce monastère
NOGARE, JEAN,	Paris 1571-1625 Église Saint-Merry de Paris
PALISSY, BERNARD DE était Géomètre, ingénieur, physicien, chimiste, naturaliste, modeleur - habile, dessinateur elégant, écrivain, un des plus grands peintres sur verre du seizième siècle	Agen 1509-1590 Il décorait les vitres de la Salle d'Armes du Château d'Ecouen, près Paris. Naquit à Agen, il termina en prison (La Bastille) 1590
PAROY, JACQUES DE, célèbre peintre sur verre, il composa des écrits, malheureusement perdus	Saint-Pourçain-sur-Allier, 1590-1692 Église de Saint-Merry, Paris, Église de Sainte-Croix, à Gannat, Église des Jacobins à Moulins-en-Bourbonnais Mort à l'age de 102 ans
PERRIER, FRANÇOIS	Paris 1581-1630 Charniers de Saint-Paul de Paris
PERRIN, PAUL	Paris 1602-1672 Église de Saint-Gervais de Paris, Église et bâtiment de la Sorbonne
PINAIGRIER, ROBERT est un des plus fameux peintres sur verre de	Paris 1501-1570 Église Saint-Hilaire de Chartres,

son temps, seizième siècle		Église de Saint-Étienne-du-Mont, Paris Église de Saint-Denis, près Paris Église Saint-Gervais de Paris
PINAIGRIER, NICOLAS, est inventeur des émaux	Paris	1512-1590 Charnier de Saint-Paul de Paris, Charnier de Saint-Étienne-du-Mont
PINAIGRIER, JEAN	Paris	1508-1580 Église Saint-Étienne-du-Mont, Paris, Charniers de Saint-Paul de Paris
POINTE, ARNOULT DE LA	Rouen	1475-1532 Saint-Ouen de Rouen
PORCHER, FÉLICE	Paris	1481-1541 Saint-Paul de Paris
POT, JEAN LE	Beauvais	1479-1563
POT, NICOLAS LE	Beauvais	1521-1577 Hôtel des Arquebusiers, Beauvais, et plusieurs édifices de la même ville
PRINCE, ANGRAND LE	Beauvais	1451-1530 Église de Saint-Étienne de Beauvais, Cathédrale de Beauvais
RÉGNIER, FRÈRE PIERRE	Saint-Maur	1711-1766 Abbaye royale de Saint-Denis
REPEL, SOYER	Rouen	1518-1572 Saint-Maclou de Rouen
RUE, LIOM DE LA	Caen	1546-1597
RUE, PAUL DE LA	Caen	1571-1621

SEMPI, P. A.	Paris	1671-1735
	Cloître des Feuillans de Paris, Chapelle de Versailles, Église des Invalides	
SIMON, FRANÇOIS	Nantes	1672-1730
	Saint-Nicolas-du-Chardonnet, Paris	
TACHERON, PIERRE	Soissons	1578-1665
	Salle de la Compagnie de l'Arquebuse, Soissons	
	Cloître des Minimes, Soissons	
TARDIF, OLIVIER	Rouen	1540-1554
	Cathédrale de Rouen	
TARDIF, NOËL	Rouen	1562-1569
	Église Saint-Ouen de Rouen	
VASSEUR, NICOLAS LE	Paris	1561-1635
	Église de Saint-Paul de Paris	
VIEIL, GUILLAUME LE (First)	Rouen	1542-1602
	Église de Saint-Maclou de Rouen	
VIEIL, GUILLAUME LE (Second)	Rouen	1640-1708
	Église de l'Ancien Hôtel-Dieu de Rouen, Cathédrale de Sainte-Croix d'Orléans	
VIEIL, GUILLAUME LE (Third)	Rouen	1676-1731
	Église des Blancs-Manteaux, Paris	
	Château de Meudon	
	Dôme des Invalides, Paris	

		Église paroissiale de Saint-Roch, Paris Saint-Nicolas-du-Chardonnet, Paris Chapître des Célestins de Paris Hôtel-Dieu de Paris Église Saint-Étienne-du-Mont, Paris Chapelle de Versailles Sainte-Chapelle de Bourges Cordeliers d'Étampes
VIEIL, JEAN LE	Paris	1702-1761 Chapelle de Versailles Château de Crécy Cathédrale de Paris Hôtel de Toulouse Collège des Bernardins
VIEIL, LOUIS LE	Paris	1695-1761
VIEIL, PIERRE LE Auteur de l'ouvrage: "L'Art de la peinture sur verre et de la vitreries"	Paris	1708-1772 Saint-Étienne-du-Mont, Paris, Abbaye de Saint-Victor, Paris, Église de Saint-Merry de Paris

II. FLEMISH ARTISTS

(Peintre-Verriers Flamands)

GHEIN, JEAN DE	Anvers	1552-1582
GHEIN, JACQUES DE	Anvers	1565-1625
GUÉRARDS, MARC	Bruges	1581-1644
HÉERE, LUCAS DE	Anvers	1534-1584
VAN DER VÉECKEN, JEAN BAPTISTE	Anvers	1591-1660 Église de Saint-Jacques d'Anvers

A List of Artists in Glass

VAN DYCK Père et premier maître du célèbre Antoine van Dyck		
VAN EYCK, JEAN "dit Jean de Bruges"	Bruges	1370-1459
VAN LINGE, ABRAHAM À travailler presque toute sa vie à Oxford, Angleterre	Gand Cathédrale d'Oxford Chapelle du Collège de la Reine (Queens College) Oxford Chapelle du Collège de Balliol (Balliol College) Oxford Chapelle du Collège de l'Université (University College) Oxford Église du Collège (Christ Church), Oxford Chapelle de la Divinité (Divinity Chapel), Oxford	1616-1670
VAN LINGE, BERNARD Frère d'Abraham et Collaborateur	Gand Chapelle de Wadham (Wadham - Chapel) Oxford, Chapelle de Lincoln's Inn, London, Chapelle de Lincoln (Lincoln Chapel), Oxford	1608-1665
VILLEMS, MARC Dessinateur, enlumineur	Malines	1527-1661
VRIENDT, JACQUES	Bruxelles Cathédrale d'Anvers, Église de Sainte Gudule, Bruxelles	1541-1598

YPRES, CHARLES D' Dessinateur	Ypres	1505-1564
VELLERT, DIRICK Dessinateur, peintre-verrier très distingué	Anvers	1522-1598

III. DUTCH ARTISTS

(Peintre-Verriers Hollandais)

ANTIQUUS, JEAN	Groningue	1702-1750
BOTH, JEAN	Utrecht	1651-1722
BYLERT, PIERRE	Utrecht	1571-1642
CLAES-JANSZE	Rotterdam Église de Saint-Jean-de-Gouda	1565-1621
CLOCK, CORNEILLE	Delft Église de Gouda	1561-1635
CRABETH, THIERRY ET VAUTIER FRÈRES (Artistes célèbres)	Gouda Église de Saint-Jean-de-Gouda	1550-1595
DAVID, JORISZ, (mort à Bâle, Suisse)	Delft	1501-1556
DOW, GERARD, connu par ses delicieux tableaux	Leyde	1613-1674
FOUCHIER, BERTRAND Élève sous Antoine Von-Dyck	Bergen-op-Zoom	1609-1674
GOLTZIUS, HENRI Dessinateur, enlumineur, graveur, très habile peintre-verrier, écrivain, etc.	Harlem	1558-1617
HOËT, GUERARD	Bommel Église de Sainte-Ursule, Delft, Hôtel de Ville, La Haye	1648-1733

HOLSTEYN, CORNEILLE	Harlem	1625-1683
JANSSENS, PIERRE	Amsterdam	1612-1673
KOWHORN, PIERRE	Leyde	1581-1649
KUFFEUS, CORNEILLE	Gouda	1531-1618
	Église de Sainte-Ursule, Delft	
LENARDS, JACQUES	Amsterdam	1601-1673
LEYDE, LUCAS DE	Leyde	1494-1533
Dessinateur, enlumineur, habile peintre-verrier, on peut, sans doute, comparer cet illustre artiste au célèbre Albrecht Dürer		
PIETERS, GÉRARD	Amsterdam	1627-1689
ROGERS, PAUL	Bruxelles	1553-1641
Excellent peintre-verrier hollandais, ses ouvrages lui fûrent commandés par François I., Charles V. et plusieurs autres souverains	Chapelle du Saint-Sacrement de Sainte-Gudule de Bruxelles	
THIBAUT, GUILLAUME	Gouda	1521-1599
	Église de Sainte-Urusule de Delft, Église de Gouda	
TOMBERG, GUILLAUME	Gouda	1601-1678
	Salle du Conseil à Gouda	
TOORNEVLIET, ABRAHAM	Delft	1591-1671
Excellent dessinateur et peintre-verrier		
VAN BOCKORST, PIERCE	Amsterdam	1625-1678
VAN BRONCKHORST, JEAN	Utrecht	1603-1681
	Nouvelle Église d'Amsterdam	

VAN COOL, LAURENT	Delft	1537-1597
	Chapelle du Conseil privé de Delft	
VAN DER ULFT, JACQUES	Gorcum	1627-1702
Artiste, Peintre-verrier, chimiste, inventeur des émaux brillants	Hotel de Ville, Gorcum, A decoré plusieurs églises au pays de Gueldres	
VAN DER VEEN, GUÉRARD,	Groningue	1671-1750
VAN DIÉPENBEKE, ABRAHAM	Anvers	1607-1675
Très habile peintre-verrier, dessinateur et compositeur. Élève de Rubens	Cathédrale d'Anvers Église paroissiale de Saint-Jacques, Anvers Église de Sainte-Gudule, Bruxelles, Cloître des Minimes, Lille	
VAN KUYCK, JEAN	Dort	1530-1572
VAN ZYLL, DIRCK-THIERRY	Utrecht	1519-1581
	Église de Gouda	
VERBURG, JEAN	Utrecht	1571-1653
VRIJE, ADRIEN DE	Gouda	1599-1667
	Église de Saint-Jean de Gouda	
UYTENVAEL, PÈRE ET SON FILS JOACHIM VYTENVAEL	Utrecht	1535-1600
	Église Saint-Jean de Gouda	
WESTERHOUT, FRANÇOIS	Gouda	1583-1651
	Salle du Conseil, Gouda	

IV. SWISS ARTISTS

(Peintre-Verriers Suisses)

AMIET, URS	Soleure	1560-1621
AMMAN, JOSE	Zurich et Nuremberg	

Dessinateur, enlumineur, compositeur excellent pour vitraux et gravures sur bois		1529-1601
ASPER, HANS Dessinateur habile	Zurich	1520-1550
BOCK, HANS Dessinateur et peintre-verrier	Berne	1512-1562
BALDEWIN, PIERRE	Zofingen	1570-1599
BALDEWIN, PIERRE, FILS	Zofingen	1590-1649
BALDEWIN, JOSÉ	Zofingen	1531-1591
BALDEWIN, GEORGE	Aarburg	1581-1621
BALDUNG, HANS, surnommé Grien, Dessinateur fort habile, Peintre-verrier de premier ordre	Bâle	1479-1552
BAN, ULRIC (LE JEUNE)	Zurich	1536-1576
BAN, JEAN-HENRI	Zurich	1533-1591
BAN, JEAN-HENRI,	Fribourg	1522-1599
BAN, HENRI	Fribourg	1520-1560
BEHAM, HANS SÉBALD, Compositeur, dessinateur, peintre-verrier distingué	Bâle	1500-1560
BERGER, JEAN-JACQUES	Zurich	1588-1639
BICKARD, ABRAHAM	Berne	1542-1615
BILGER, PAUL	Bâle	1562-1619
BLUNTSCHLI, RODOLPHE Peintre-verrier, compositeur habile	Zurich	1499-1565
BLUNTSCHLI, NICOLAS, Dessinateur et célèbre peintre-verrier	Zurich	1518-1609
BLUNTSCHLI, HANS BALTHASAR	Zurich	529-1587

Considéré fort habile comme peintre et vitrier		
BOCHLI, GEORGE	Soleure	1545-1595
BOCHLI, WOLFGANG Peintre - verrier distingué	Soleure	1531-1593
BRANDENBERG, NICOLAS Fameux Peintre-verrier en miniatures	Zoug	1598-1671
BRENNWALD, JOACHIM	Zurich	1546-1624
BRENNWALD, JEAN-GEORGE	Zurich	1583-1615
BRENI, HANS-ULRIC	Rapperswyl	1600-1659
BROSAMER, HANS Dessinateur, Enlumineur	Bâle	1575-1660
BRUNNER, NICOLAS	Soleure	1560-1618
BRUNNER, JOACHIM	Brugg	1519-1581
BRUNNER, PIERRE surnommé le Peintre de Brugg	Brugg	1531-1593
DAENTZLER, HANS	Zurich	1588-1652
DIEBOLD, HANS	Zurich	1568-1631
DIEBOLT, HANS CASPER	Zurich	1600-1674
DIETERLIN, WENDEL Dessinateur, et Compositeur fort habile	Bâle	1595-1660
DUNZ, JEAN-JACQUES	Brugg et Bâle	1580-1655
DUR, MELCHIOR	Soleure	1539-1593
ÉGERI, CHARLES D' Dessinateur excellent, le plus fameux peintre sur verre qui existait en Suisse. Presque tous ses œuvres sont signées C. V. E.	Zurich	1510-1562

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ÉGERI, HANS RUDOLPH Compositeur, habile Peintre-verrier	Zurich	1541-1607
ENGELHART, HANS HEINRICH	Zurich	1557-1612
ERHARD, TOBIAS Dessinateur et Peintre verrier excellent	Winterthur	1569-1622
ERMATINGER, HANS-ULRIC	Schaffhouse	1561-1651
FALLENTER, FRANÇOIS Très habile Peintre-verrier, Dessinateur et Compositeur d'une grande collection des vitraux célèbres.	Lucerne	1580-1642
FIETZ, GEORGE	Zurich	1528-1591
FLUECKIGER, HANS	Burgdorf	1585-1641
FORRER, DANIEL	Schaffhouse	1561-1615
FRIDLI, BURGHARD	Zurich	1536-1572
FRIES, HANS RODOLPHE Célèbre Peintre-verrier	Zurich et Schaffhouse	1597-1661
FRICK, ULRIC	Zurich	1532-1600
FROEHLICHER, WOLFGANG	Soleure	1541-1596
FUCHS, JEAN Habile artiste de son temps	Lucerne	1431-1495
FUCHSLI, JACQUES	Bremgarten	1512-1572
FUCHSLI, HANS	Bremgarten	1561-1612
FUCHSLI, SCHULTHEISS	Bremgarten,	1551-1621
FUNCK, HANS Excellent Dessinateur et Peintre-verrier	Zurich et Berne	1483-1540
FUSSLIN, WALTHART	Fribourg	1550-1591
GAISBERGER, FRANÇOIS Dessinateur, et Compositeur	Constance	1555-1607

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GANTINN, H. J.	Bâle	1583-1641
GRAF, URS Célèbre Dessinateur, Compositeur, Enlumineur	Bâle	1556-1610
GRIMM, MAX	Schaffhouse	1557-1618
GRISSACH, PIERRE	Lucerne et Môrat	1543-1605
GRIFF, HANS GASPAR Peintre-verrier distingué	Fribourg	1539-1596
GUGGER, URS	Soleure	1547-1599
GUT, JEAN-JACQUES Habile peintre-verrier	Berne	1555-1609
HAFFNER, THOMAS	Soleure	1537-1601
HALDENSTEIN, ULRIC	Zurich	1542-1611
HEGENER, JACQUES	Zurich	1558-1615
HEGENER, JEAN-HENRI	Zurich	1600-1658
HEIMO, GUILLAUME	Fribourg	1542-1600
HINDEREGGER, VINCENT	Lucerne	1519-1600
HIRT, CASPAR	Zurich	1634-1700
HOLBEIN, HANS (LE JEUNE) Il est inutile de s'étendre ici sur le mérite de ce grand artiste, regardé comme le Doyen de la peinture sur verre en Suisse	Bâle	1495-1543
HOLZHALB, HENRI	Zurich	1503-1570
HOER, ANDRÉ Dessinateur, Compositeur, Peintre-verrier fort habile. Ces peintures ressemblent à des vraies miniatures	St. Gall	1503-1582
HUBER, CASPAR	Zurich	1605-1631
HUEBSCHI, JEAN-JACQUES	Berne	1541-1600

HUG, HANS M. Il excellait principalement dans les grisailles. Ill marquait ces ouvrages du monogramme, H. M. Hug	Zurich	1500-1561
JAEGGLI, HANS	Winterthür	1571-1635
JEGLY, HANS ULRIC Très habile peintre-verrier, Dessinateur et Compositeur	Zurich	1584-1651
JERLI, LEONARD	Fribourg	1550-1621
JOST; HANS	Aarau	1549-1597
KACHLER, JEAN Peintre-verrier très distingué	Uri	1561-1638
KELLER, ANTOINE	Schaffhouse	1548-1612
KELLER, HANS-BALTHASARE	Zurich	1576-1638
KELLER, SALOMON	Zurich	1582-1642
KESSLER, ULRIC	Schwyz	1512-1582
KOLMANN, JEAN-FRÉDÉRIC	Schaffhouse	1550-1608
KUEBLER, HANS-WERNER, Excellent Peintre-verrier	Schaffhouse	1543-1607
KUEBLER, WERNER (Fils), Dessinateur, Compositeur, habile Peintre-verrier	Schaffhouse	1568-1642
KUEBLER, JEAN SEBASTIEN Excellent Dessinateur et Peintre-verrier	Schaffhouse	1571-1651
KUHN, W.	Zurich	1569-1634
KUSTER, OSWALD	Winterthür	1567-1623
LANG, DANIEL	Schaffhouse	1553-1613

Peintre et Maître-verrier très distingué		
LANG, HIERONYMUS, Bon peintre-verrier	Schaffhouse	1543-1605
LANG, HANS GASPAR Peintre-verrier fort habile, Dessinateur, Compositeur	Schaffhouse	1561-1636
LAVATER, HANS	Zurich	1549-1595
LINDINNER, MATHIEU	Zurich	1562-1611
LINDNER, JEAN, HENRI	Zurich	1571-1637
LINDTMEYER, DANIEL Un des plus illustres Artistes suisses de la Renaissance, excellent Dessinateur, Enlumineur et Compositeur pour vitraux en miniatures	Schaffhouse	1561-1622
LINGK, BARTOLOMÉ Habile Peintre-verrier et Dessinateur	Zurich et Strassbourg	1558-1632
LIPP, HANS	Lucerne	1553-1607
LOEUW, HENRI	Zurich et Aarau	1523-1576
LURER, JOSEPH	Chur	1541-1599
MANUEL, HANS RODOLPHE, Artiste très connu par ses admirables dessins pour vitraux et peintures à l'huile	Berne	1530-1581
MANUEL, NICOLAS Dessinateur, Compositeur, Artiste par excellence	Bâle	1473-1535
MANUEL, EUGÈNE	Bâle	1501-1576

Dessinateur pour vitraux, très habile Peintre		
MARGKGRAFF, E.	Lucerne	1544-1605
MECKEN, ISRAËL VAN Habile Peintre-verrier et Dessinateur, originaire d'Hollande	Lucerne	1544-1605
MENLIN, PIERRE	Bâle	1305-1361
MEYER, D. Bon Peintre-verrier	Zurich	1572-1658
MEYER, HENRI	Zurich	1502-1569
MEYER, HANS C. Le dernier peintre-verrier suisse de son temps	Zurich	1694-1766
MOST, JEAN-JACQUES	Zurich	1589-1629
MUELLER, PAUL Excellent Peintre-verrier et Dessinateur	Zoug	1581-1642
MUELLER, MICHEL Célèbre par ses nombreuses peintures sur verre en miniature, qu'il a executées pour le monastère de Muri	Zoug	1628-1676
MUELLER, TOBIAS Bon Peintre-verrier en miniatures	Zoug	1596-1670
MUELLER, JACQUES	Zurich	1565-1611
MUELLIBACH, HANS	Zurich	1490-1543
MUERER, JODOCUS Bon Peintre-verrier et Compositeur	Zurich	1530-1580
MUERER, CHRISTOPHE Fils du précèdent excellent Dessinateur et	Zurich	1558-1614

Peintre-verrier, Artiste fort renommé		
MUERER, José, Très habile Peintre-verrier	Zurich	1564-1630
NUESCHELER, HENRI	Zurich	1550-1616
NUESCHELER, CHRISTOPHE	Zurich	1589-1661
NUESCHELER, JEAN-GASPAR	Zurich	1605-1652
NUESCHELER, JEAN HENRI Bon Peintre-verrier, Maître-verrier	Zurich	1641-1705
NUESCHELER, JEAN-JACQUES	Zurich	1583-1654
NUESCHELER, JEAN-JACQUES (Le Jeune) Peintre-verrier fort habile, Dessinateur et Compositeur	Zurich	1614-1658
NUESCHELER, JEAN-ULRIC	Zurich	1645-1707
NUESCHELER, OSWALD	Zurich	1600-1635
PEYER, MATHIEU	Zurich	1563-1611
RADY, LUX	Bâle	1562-1619
REHBACH, GASPAR	Lucerne	1571-1621
REIDET, (Le Jeune)	Fribourg	1550-1597
RIEHER, H.	Bâle	1549-1605
RINGGLI, GODARD	Zurich	1575-1635
RINGLER, LOUIS Peintre-verrier fort habile	Bâle	1518-1607
RIPPEL, NICOLAS	Bâle	1545-1605
RORDORF, JEAN HENRI	Zurich	1591-1680
RUETTER, JEAN PIERRE	Zurich	1550-1610
RUTTER, JEAN JACQUES	Zurich	1581-1620
SCHAD, JEAN HENRI	Zurich	1560-1615

SCHAENNIS, JEAN DE	Zurich	1606-1683
SCHAERER, JEAN FÉLIX	Zurich	1582-1636
SCHMID, JEAN THEODORE	Zurich	1538-1582
SCHMITTER, JEAN M.	Wyl	1563-1631
SCHMUCKER, ANDRÉ	Stein S. Rhin	1561-1611
SCHNYDER, HENRI	Schaffhouse	1580-1639
SCHOEN, JEAN Peintre habile, Dessinateur, Compositeur, etc.	Zurich	1516-1586
SCHRYBER, TOBIAS	Schaffhouse	1558-1629
SCHWALLER, JACQUES	Soleure	1541-1598
SEEBACH, JEAN GEORGE	Zurich	1522-1603
SEEBACH, ULRIC	Zurich	1498-1552
SPENGLER, JACQUES Dessinateur, Compositeur, excellent Peintre-verrier	Constance	1534-1622
SPENGLER, J. A. Peintre-verrier distingué	Constance	1558-1635
SPENGLER, JEAN GEORGE Excellent Dessinateur et Peintre-verrier	Constance	1647-1719
SPENGLER, J. M.	Constance	1641-1702
SPENGLER, M. S.	Constance	1623-1690
SPENGLER, WOLFGANG Bon peintre-verrier	Constance	1641-1655
SPRINGINKLEE, MAURICE Dessinateur, Enlumineur, Graveur. Il peignait aussi sur verre avec la même habilité	Bâle	1531-1592
SPRINGLIN, HENRI	Zurich et Nuremberg	1431-1497
SPRUENGLI, JEAN JACQUES	Zurich	1559-1637
SPYSER, JEAN (*surnommé* "Zwinger")	Bischofszell	1544-1604

STADLER, GEOFFREY	Zurich et Winterthür	1616-1637
STARCH, GUILLAUME	Schaffhouse	1561-1672
STIMMER, TOBIAS Excellent Peintre-verrier, Dessinateur, Compositeur et Enlumineur; Artiste très distingué	Schaffhouse	1539-1584
STRASSER, JEAN RODOLPHE	Zurich	1631-1687
STRICKER, JACQUES	Uri	1521-1687
STRUSS, ROCHE	Schaffhouse	1555-1602
STRUSS, RODOLPHE	Schaffhouse	1551-1618
SUR, JEAN	Bâle	1561-1615
SUTER, HENRI	Baden	1537-1599
SUTER, JEAN	Bâle	1561-1615
SYBOLD, SAMUEL	Berne	1529-1600
TETZELER, A. B.	Bâle	1550-1600
TETZLER, JEAN GUILLAUME	Schaffhouse	1549-1629
THOMMAN, JEAN	Zurich	1525-1575
THOEUCHER, JEAN HENRI	Zurich	1514-1631
THUERING, WALTER Fameux Peintre sur verre, Dessinateur élégant, compositeur	Berne	1544-1625
TUBENMANN, JEAN BALTHASAR	Zurich	1563-1607
USTERI, JEAN	Zurich	1536-1587
VISCHER, MAX SIMON	Bâle	1549-1611
VISCHER, HYRONIMUS	Bâle	1553-1621
VISCHER, G. A. Dessinateur excellent	Bâle	1558-1609
WALDER, JEAN	Zurich	1558-1612
WAEGMANN, JEAN, HENRI	Zurich et Lucerne	1557-1636

WANNENWETSCH, GEORGE	Bâle	1557-1614
WANNENWETSCH, G. A.	Bâle	1686-1763
WEBER, JEAN ULRIC	Zurich	1666-1733
WEBER, JACQUES Bon Peintre - verrier, Dessinateur, Enlumineur	Winterthür	1637-1685
WEERDER, HENRI	Zurich	1528-1590
WIRT, NICOLAS Très habile Peintre-verrier, Dessinateur et Compositeur	Wyl	1533-1598
WIRZ, GASPAR	Zurich	1575-1641
WISS, HENRI	Zurich	1518-1588
WOLF, JEAN GUILLAUME	Zurich	1638-1710
ZEINER, LUX	Zurich	1458-1511
ZENDER, JEAN	Berne	1544-1609
ZUMBACH, ADAM Véritable Artiste Peintre-verrier en miniature, Dessinateur et Compositeur fort renommé	Zoug	1605-1682
ZUENER, BERNARD	Schaffhouse	1551-1619

V. ENGLISH ARTISTS

(Peintre-Verriers Anglais)

BACHLER, G.	Londres	1721-1789
BARNETT, JEAN	Londres	1786-1859
BECKWITH, W.	Londres Salle des Barons au château d'Arundel	1728-1777
COLLINS, M. W.	Londres, Chapelle de Notre-Dame, Paris, Église	1775-1842

de Saint-Étienne du Mont, Paris, Église de Sainte-Elizabeth, Paris

EGINTON, FRANÇOIS — Birmingham 1736-1805
Chapelle du Collège de la Madeleine, Oxford,
Chapelle de Saint-George, Windsor,
Chapelle de All-Soul's College, Oxford

FLOWER, BERNARD — Londres et Cambridge 1459-1526
Collège du Roi à Cambridge,
Chapelle Henri VII., Westminster Abbey, Londres

FOREST, CLEMENT — Oxford 1769-1831

GIDDE, WALTER — Londres 1571-1635
Maître-verrier

GYLES, HENRI — York 1662-1709
Chapelle du Collège d'Université, Oxford

GREENBURY, RICHARD — Oxford 1595-1666
Chapelle du Collège de la Madeleine à Oxford

GODFREY, ROBERT SCOTT — Londres et Paris 1739-1795
Cathédrale d'Exeter

JARVIS, BENOÎT — Londres 1761-1829
Chapelle de Saint George, Windsor

JERVAIS, FRANÇOIS B. — Londres 1735-1801
a peint un vitrail pour

		la chapelle du Collège neuf à Oxford après le dessin de Sir Joshua Reynolds
MARLOW, LOVEGROVE DE	Oxford	1681-1755
	Chapelle du Collège de All Souls, Oxford	
MILLER, J. H.	Doncaster	1650-1734
	Église de Doncaster	
OLIVER, ISAAC	Oxford	1620-1712
	Église du Collège de Christ-Church, Oxford	
PEARSON, JAMES	Londres	1729-1800
	Chapelle du Collège de Brazenose, Oxford	
	Église de Salisbury, etc.	
PEKITT, WILLIAM	York	1718-1795
	Chapelle du Collège neuf à Oxford	
	Cathédrale d'Exeter	
PICKET, FRANÇOIS	Londres	1726-1783
	Cathédrale de Lincoln	
PRICE, WILLIAM (senieur)	Londres et York	1699-1722
	Chapelle du Collège de la Reine à Oxford	
	Chapelle de Merton College	
PRICE, WILLIAM (Le Jeune)	Londres	1687-1765
	Chapelle du Collège de la Madeleine à Oxford	
	Chapelle du College neuf à Oxford	

A List of Artists in Glass

VI. ALLEMANIC ARTISTS

(Peintre-Verriers—Allemanics)

ACKER, JEAN Très habile Peintre-verrier	Ulm Cathédrale d'Ulm	1413-1441
ACKER, PIERRE	Ulm	1408-1471
ACKER, JACQUES	Ulm	1393-1435
ACKER, MICHEL	Ulm	1409-1465
ACKER, PÈRE ET FILS	Ulm	1450-1521
BAUMGAERTNER, S.	Innsbrück	1727-1779
BUHLER, J. G.	Urach	1761-1823
DECKINGER, PIERRE	Ulm	1407-1449
DECKINGER, JEAN Bon Dessinateur, Compositeur et Peintre-verrier	Ulm Cathédrale d'Ulm	1401-1461
GRIESINGER, JACQUES "Surnommé l'Allemand" célèbre Peintre du Quinzième Siècle Mort à Bologna (Italie)	Ulm	1407-1491
FRANCK, E.	Munich et Nuremberg	1761-1831
KAIBER, ANTOINE	Strasbourg	1574-1641
KIRCHHEIM (Jean de) Excellent Peintre-verrier du Quatorzième Siècle	Strasbourg Cathédrale de Strasbourg Église Saint Guillaume à Strasbourg. Église de Niederhaslach (10 fenêtres)	-1348-
ISENMANN, GASPARE Enlumineur, Compositeur, Peintre-verrier fort habile du Quinzième Siècle	Colmar Église de Valbourg	1412-1481

MAURER, JEAN, CHRISTOPHE	Reutlingen	1623-1693
MAURER, M.	Reutlingen	1590-1661
PFEIFFER, ULRIC	Tuttlignen,	1551-1612
LUTZ, GASPARE	Tübingen,	1548-1621
E. S. (Monogrammiste) Graveur, Enlumineur Compositeur, Peintre-verrier très distingué	Valbourg Église de Schlestadt Église Saint-Guillaume à Strasbourg	-1461-
SCHONGAUER, MARTIN Surnommé "Schoen," un des plus illustres Artistes du quinzième siècle, très habile dessinateur compositeur et graveur	Colmar	1445-1491
TIEFFENTHAL, JEAN (Surnommé, "Jean de Schlestadt") Excellent Dessinateur, Compositeur et Peintre-verrier du commencement du quinzième siècle	Schlestadt Chapelle de la Sainte Vièrge à Saverne (Bas Rhin)	1390-1465
WILD, JEAN Dessinateur, Compositeur et Peintre-verrier excellent. Il est considéré le plus grand Artiste dans son genre au quinzième siècle	Ulm Église d'Urach Église de Tübingen Cathédrale d'Ulm Église de Nonnberg, à Salzbourg Église Sainte Madeleine, Strasbourg Cathédrale d'Augsburg Notre Dame à Munich Église Saint Laurent à Nuremberg	1441-1519